



Cisco IP/TV Viewer User Guide

Version 3.5

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Preface

This preface discusses the objective, intended audience, and organization of the *Cisco IP/TV Viewer User Guide* and defines the conventions used to convey instructions and information. It also discusses how to access online help and obtain documentation on Cisco.com and the Documentation CD-ROM.

This preface contains the following sections:

- [Document Objective, page ix](#)
- [Audience, page x](#)
- [Document Organization, page x](#)
- [Document Conventions, page xi](#)
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- [Obtaining Additional Publications and Information, page xvi](#)

Document Objective

This guide describes how to install and use IP/TV Viewer, which is part of a web-based application that delivers live or prerecorded multimedia streams to an unlimited number of users over an IP-based local- or wide-area network.

Audience

This guide is for users who need instructions about how to install and set up IP/TV Viewer, and play multimedia programs.

Document Organization

This guide is organized into the following chapters:

Chapter	Title	Description
Chapter 1	Product Overview	Provides an overview of the IP/TV application.
Chapter 2	Installing IP/TV Viewer	Describes the procedures for installing IP/TV Viewer.
Chapter 3	Getting Started	Describes the procedures for launching IP/TV Viewer, navigating within the main window, and setting IP/TV Viewer options.
Chapter 4	Using IP/TV Viewer	Describes the procedures for using IP/TV Viewer to display program information, play a program, subscribe to a program, and use Question Manager. It also provides information about advanced topics.
Chapter 5	Customizing the User Interface	Describes the procedures for moving and hiding panes, and customizing and creating new toolbars.
Chapter 6	Using IP/TV in a Web Browser	Describes the procedures for using IP/TV Viewer as a browser plug-in and helper application.
Appendix A	Menu Bar and Tool Icon Reference	Lists and describes all the menu commands and toolbar buttons in both the Program Listing and Viewer windows.

Document Conventions

The IP/TV documentation set uses the following conventions:

Convention	Description
>	Indicates movement through menu options, for example: Choose Start > Run .
bold	Indicates a button that you are instructed to click, for example: Click Next .
screen	Shows an example of information displayed on the screen.
boldface screen	Shows an example of information that you must enter.

Command Syntax Conventions

Command descriptions use the following conventions:

Convention	Description
boldface	Indicates commands and keywords that are entered literally as shown.
<i>italics</i>	Indicates arguments for which you supply values; in contexts that do not allow italics, arguments are enclosed in angle brackets (< >).
[x]	Indicates optional keywords or arguments.
{ x y z }	Indicates a choice of required keywords (represented by x , y , and z). You must select one.
[x { y z }]	Indicates a required choice within an optional element. You do not need to select keyword x , but if you do, you must specify either argument y or argument z .

The following conventions are used to attract the attention of the reader:

**Note**

Means *reader take note*. Notes contain helpful suggestions or references to materials not contained in this manual.

**Caution**

Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Using Online Help

IP/TV Viewer offers online help for menu items, toolbar items, specific tasks, and more. There are several ways to access help, depending on the information you want and the method you find most convenient:

- If you want to read one or more help topics, choose **Help > Contents**. From the contents list, click the name of a topic to display that topic.
- To learn how to navigate through online help, choose **Help > Using Help**.
- To access the IP/TV technical support web page, choose **Help > Web Help**.

Choose **Help > About IP/TV Viewer** to display version and copyright information for IP/TV Viewer.

To contact Technical Support at Cisco Systems, go to the following URL:
<http://www.cisco.com/warp/public/cc/pd/mxsv/iptv3400/sup/index.shtml>.

Obtaining Documentation

Cisco provides several ways to obtain documentation, technical assistance, and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation on the World Wide Web at this URL:

<http://www.cisco.com/univercd/home/home.htm>

You can access the Cisco website at this URL:

<http://www.cisco.com>

International Cisco websites can be accessed from this URL:

http://www.cisco.com/public/countries_languages.shtml

Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which may have shipped with your product. The Documentation CD-ROM is updated regularly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual or quarterly subscription.

Registered Cisco.com users can order a single Documentation CD-ROM (product number DOC-CONDOCCD=) through the Cisco Ordering tool:

http://www.cisco.com/en/US/partner/ordering/ordering_place_order_ordering_tool_launch.html

All users can order annual or quarterly subscriptions through the online Subscription Store:

<http://www.cisco.com/go/subscription>

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpk/pdi.htm

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Networking Products MarketPlace:

<http://www.cisco.com/en/US/partner/ordering/index.shtml>

- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, USA.) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

Documentation Feedback

You can submit comments electronically on Cisco.com. On the Cisco Documentation home page, click **Feedback** at the top of the page.

You can send your comments in e-mail to bug-doc@cisco.com.

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, the Cisco Technical Assistance Center (TAC) provides 24-hour, award-winning technical support services, online and over the phone. Cisco.com features the Cisco TAC website as an online starting point for technical assistance.

Cisco TAC Website

The Cisco TAC website (<http://www.cisco.com/tac>) provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The Cisco TAC website is available 24 hours a day, 365 days a year.

Accessing all the tools on the Cisco TAC website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a login ID or password, register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

Opening a TAC Case

The online TAC Case Open Tool (<http://www.cisco.com/tac/caseopen>) is the fastest way to open P3 and P4 cases. (Your network is minimally impaired or you require product information). After you describe your situation, the TAC Case Open Tool automatically recommends resources for an immediate solution. If your issue is not resolved using these recommendations, your case will be assigned to a Cisco TAC engineer.

For P1 or P2 cases (your production network is down or severely degraded) or if you do not have Internet access, contact Cisco TAC by telephone. Cisco TAC engineers are assigned immediately to P1 and P2 cases to help keep your business operations running smoothly.

To open a case by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete listing of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

TAC Case Priority Definitions

To ensure that all cases are reported in a standard format, Cisco has established case priority definitions.

Priority 1 (P1)—Your network is “down” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Priority 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Priority 3 (P3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Priority 4 (P4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The *Cisco Product Catalog* describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the *Cisco Product Catalog* at this URL:

http://www.cisco.com/en/US/products/products_catalog_links_launch.html

- Cisco Press publishes a wide range of networking publications. Cisco suggests these titles for new and experienced users: *Internetworking Terms and Acronyms Dictionary*, *Internetworking Technology Handbook*, *Internetworking Troubleshooting Guide*, and the *Internetworking Design Guide*. For current Cisco Press titles and other information, go to Cisco Press online at this URL:

<http://www.ciscopress.com>

- Packet magazine is the Cisco quarterly publication that provides the latest networking trends, technology breakthroughs, and Cisco products and solutions to help industry professionals get the most from their networking investment. Included are networking deployment and troubleshooting tips, configuration examples, customer case studies, tutorials and training, certification information, and links to numerous in-depth online resources. You can access Packet magazine at this URL:
<http://www.cisco.com/go/packet>
- iQ Magazine is the Cisco bimonthly publication that delivers the latest information about Internet business strategies for executives. You can access iQ Magazine at this URL:
<http://www.cisco.com/go/iqmagazine>
- Internet Protocol Journal is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:
http://www.cisco.com/en/US/about/ac123/ac147/about_cisco_the_internet_protocol_journal.html
- Training—Cisco offers world-class networking training. Current offerings in network training are listed at this URL:
<http://www.cisco.com/en/US/learning/index.html>



Product Overview

This chapter introduces the IP/TV product and IP/TV Viewer application and lists the new features in IP/TV Version 3.5. This chapter contains the following sections:

- [About IP/TV, page 1-1](#)
- [IP/TV Components, page 1-2](#)
- [New Features in IP/TV Version 3.5, page 1-3](#)

About IP/TV

IP/TV is a network-based application that delivers live or prerecorded, on-demand or scheduled programs to an unlimited number of users over any IP-based local- or wide-area network. Synchronized presentations and screen captures are also supported, in addition to a wide range of video management functions.

As part of the Cisco Content Networking family, IP/TV is a turnkey solution that brings movie-quality video over enterprise networks to the desktop of the user, eliminating the need for dedicated video cabling, monitors, or special viewing rooms. Designed with respect to scalability, high-quality broadcasts are delivered safely across large enterprises.

Applications for IP/TV include broadcast TV to the desktop, video-on-demand, computer-based training, distance learning, corporate communications, manufacturing process monitoring, and surveillance systems.

IP/TV Version 3.5 supports a wide variety of audio and video formats, including Moving Picture Experts Group-1 (MPEG-1), MPEG-2, Microsoft MPEG-4, ISO MPEG-4, Internet Streaming Media Alliance (ISMA) MPEG-4 Advanced Audio Coding-Low Complexity (AAC-LC), and H.261.

To view a 7-minute video that describes IP/TV capabilities, click **Introduction Video** on the Cisco IP/TV Installer CD.

IP/TV Components

IP/TV consists of three separate components: IP/TV Viewer, IP/TV Content Manager, and IP/TV Server.

IP/TV Viewer

IP/TV Viewer resides on the client and lets you view programs. A program is an audio, video, or text transmission over the network. IP/TV Viewer has a customizable user interface that displays a list of scheduled and on-demand programs. IP/TV Viewer allows you to subscribe to any of the listed programs, and plays the program at the scheduled or requested time. You can also browse among all currently running programs.

IP/TV Viewer obtains program information from IP/TV Content Manager, and displays programs served by IP/TV Server or other servers. It can also display programs multicast from the Multicast Backbone (MBone) of the Internet or from other servers that transmit in MBone-compatible format.

IP/TV Viewer can run as a standalone application, a helper application activated by a web browser, or a browser plug-in. It runs on Windows 98, Windows 2000, Windows NT 4.0, and Windows XP SP1.

This guide provides information on how to install and use IP/TV Viewer.

IP/TV Content Manager

IP/TV Content Manager is accessed from a browser and is used by the system administrator or broadcast administrator to set up and manage IP/TV scheduled or on-demand programs, channels, recordings, and file transfers among IP/TV servers.

IP/TV Content Manager runs on Windows 2000 Server and Windows NT 4.0. You can access the Content Manager from Netscape 4.5x or 4.7x, or Microsoft Internet Explorer 5.x or later. The browser must have support for Java and JavaScript enabled.

The *Cisco IP/TV Content Manager User Guide* provides information on how to create scheduled and on-demand programs. Refer to the *Cisco IP/TV Administration and Configuration Guide* for information on how to install, configure, and administer IP/TV Content Manager.

IP/TV Server

IP/TV Server, which is controlled by IP/TV Content Manager, serves and records programs. It multicasts and records scheduled programs, unicasts on-demand programs, and transfers files according to the schedules defined in IP/TV Content Manager.

The same server can be used for live encoding with a video capture card and for serving prerecorded files.

IP/TV Server runs on Windows 2000 Server and Windows NT 4.0.

Refer to the *Cisco IP/TV Administration and Configuration Guide* for information on how to install, configure, and administer IP/TV Server.

New Features in IP/TV Version 3.5

IP/TV Version 3.5 introduces the following new features for IP/TV Viewer:

- [MPEG-4 AAC-LC](#)
- [QuickTime Plug-In Support for the Web-Based Program Guide](#)
- [Support for Different Viewers](#)

- [Web-Based Question Manager](#)
- [MPEG-4 Codec for SlideCast](#)
- [Improved Streaming](#)

MPEG-4 AAC-LC

IP/TV Version 3.5 supports MPEG-4 AAC-LC, which makes it compatible with ISMA standards. MPEG-4 AAC-LC support enables IP/TV to archive and stream high-quality audio content over low-bandwidth Internet links.

IP/TV Version 3.5 supports AAC in the following areas:

- Scheduled rebroadcast of AAC-based MP4 files
- Video-on-demand streaming of AAC-based MP4 files
- Playback of IP/TV AAC streams on Apple QuickTime 6 Player
- Playback of IP/TV AAC streams on IP/TV Viewer Version 3.5

QuickTime Plug-In Support for the Web-Based Program Guide

IP/TV Version 3.5 supports the Apple QuickTime 6.0 software as a client application. When the web-based program guide is used to view a program, this feature automatically launches the QuickTime plug-in if the IP/TV plug-in is not installed. However, this feature does not work when the program's Enforce IP/TV Viewer option is checked.

QuickTime supports ISMA MPEG-4, MPEG-2, and SlideCast with live video and basic audio and video streaming from the IP/TV Server to the QuickTime 6.0 client. For more information on the QuickTime plug-in, see the [“Using QuickTime as a Plug-In”](#) section on page 6-5.



Note

To view an MPEG-2 stream on QuickTime, you need a decoder from Apple installed on your device.

Support for Different Viewers

IP/TV Server Version 3.5 and IP/TV Content Manager Version 3.5 support both the QuickTime Player and IP/TV Viewer. Users can use either IP/TV Viewer or the QuickTime plug-in to watch a program. Only the QuickTime plug-in—and not the QuickTime standalone client—is supported by this feature.

Web-Based Question Manager

IP/TV Version 3.5 introduces a web-based Question Manager. This feature allows users to access Question Manager from IP/TV browser plug-in as well as from the QuickTime plug-in window. The **Click Here to Ask a Question to the Speaker** link in the browser window takes you to the web-based Question Manager. The questions entered in the Question Manager window are then sent to the Question Manager daemon on IP/TV Content Manager. For more information on the web-based Question Manager, see the [“Using Question Manager” section on page 4-32](#).

MPEG-4 Codec for SlideCast

In order to improve the clarity of slides in the SlideCast feature, IP/TV Version 3.5 uses MPEG-4 Simple Profile encoding. Previous versions of IP/TV used H.261 encoding for SlideCast. MPEG-4 supports higher resolutions and better compression than H.261 and ensures quality SlideCast presentations.

Improved Streaming

IP/TV Version 3.5 supports four to eight MPEG streams per server on the new IP/TV Server hardware: the Cisco IP/TV 3426 and IP/TV 3427 Broadcast Servers.

[Table 1-1](#) describes the new hardware platforms and the number of streams supported.

Table 1-1 Streams Supported on Cisco IP/TV 3426 and 3427 Broadcast Servers

Hardware	Capture Cards	Number of Streams Supported
IP/TV 3426 Broadcast Server	1 4-port Winnov Videum 4400 capture card	4 total: <ul style="list-style-type: none"> • 1 CIF¹ • 3 QCIF²
IP/TV 3427-C1 Broadcast Server	<ul style="list-style-type: none"> • 2 1-port Winnov 1010 Plus capture cards plus • 1 4-port Winnov Videum 4400 capture card 	6 total: <ul style="list-style-type: none"> • 4 CIF • 2 QCIF
IP/TV 3427-C2 Broadcast Server	<ul style="list-style-type: none"> • 2 1-port Winnov 1010 Plus capture cards plus • 1 4-port Winnov Videum 4400 capture card plus • 2 Optibase MovieMaker 200S Networker capture cards 	8 total: <ul style="list-style-type: none"> • 6 MPEG-4 (4 CIF and 2 QCIF) • 2 MPEG-1 or MPEG-2
IP/TV 3427-C3 Broadcast Server	<ul style="list-style-type: none"> • 2 1-port Winnov 1010 Plus capture cards plus • 3 Optibase MovieMaker 200S Networker capture cards 	5 total: <ul style="list-style-type: none"> • 2 CIF MPEG-4 • 3 MPEG-1 or MPEG-2

1. CIF = Common Intermediate Format

2. QCIF = Quarter Common Intermediate Format

Playing Media Clips Before a Scheduled Event

This new feature of IP/TV Version 3.5 helps program administrators create a set of programs that plays before the scheduled broadcast of a live program. The programs are created with the same attributes as those of the live program and start playing at the time set by the administrator and stop when the live program starts. Administrators can use this feature to broadcast related programs and information about the live event in order to keep the audience tuned to the scheduled broadcast of the live event. This function also helps administrators verify that users can view the scheduled broadcast: if viewers can view the program of media clips with no difficulty, then they will be able to view the broadcast of the live event.



Installing IP/TV Viewer

This chapter lists hardware and software requirements for running Cisco IP/TV Viewer and describes the procedures for installing it. This chapter includes the following sections:

- [Hardware and Software Requirements, page 2-2](#)
- [Before You Begin, page 2-4](#)
- [Installation Procedure, page 2-4](#)
- [IP/TV Viewer Demo Installation, page 2-6](#)
- [Incremental Installer for IP/TV Viewer, page 2-8](#)
- [Uninstalling IP/TV Viewer, page 2-8](#)



Note

For information about completing an IP/TV Viewer network installation or using the Silent Install mode, refer to Chapter 4, “Administering IP/TV Viewer,” in the *Cisco IP/TV Administration and Configuration Guide, Version 3.5*.

Hardware and Software Requirements

The following list contains the recommended minimum configuration for a computer running IP/TV Viewer.

- 200-MHz Pentium processor for non-MPEG-2 streams (233-MHz Pentium processor for Windows XP). 300-MHz Pentium processor for MPEG-2 at 3 Mbps, 400-MHz for MPEG-2 at 6 Mbps. 400-MHz Pentium for MPEG-4. The frame rate may vary slightly depending on your Video Graphics Array (VGA) adapter and network interface card.
- Minimum 32 MB of RAM for Windows 98, Windows 2000, and Windows NT. Minimum 64 MB of RAM for Windows XP.
- 1-GB system drive for Windows 98, Windows 2000, and Windows NT. 1.5-GB system drive for Windows XP.
- SuperVGA monitor.
- VGA adapter card with 16-bit (65536 colors) or higher color depth.
- Microsoft Windows 98, Windows 2000, Windows NT 4.x with Service Pack 4 (Service Pack 6a recommended), Windows XP with Service Pack 1.



Note To ensure that they have access to all of the features of IP/TV Version 3.5, users of Windows XP with Service Pack 1 must update Windows XP using the patches listed in [Table 2-1](#).

- Microsoft DirectShow software, Microsoft Video for Windows software for Windows codecs (compression/decompression algorithms) like the Indeo video compressor. This is shipped with IP/TV Viewer.
- IP/TV Viewer software.
- Microsoft Internet Explorer 5.0 browser or later. Netscape browser 4.5x or 4.7x.
- MPEG-2 decoder for viewing MPEG-2 programs. IP/TV supports the Optibase VideoPlex Xpress hardware MPEG decoder and the Mediamatics software MPEG-2 decoder. Neither of these is included with Cisco IP/TV.
- Network interface card, Microsoft or other 32-bit WinSock 1.1- or 2.0-compliant TCP/IP stack with support for IP multicasting and Internet Group Management Protocol (IGMP) protocol support.

Windows XP Patches for Update

If IP/TV Viewer is running on Windows XP with Service Pack 1, you must update the Windows XP operating system on that device for the proper functioning of IP/TV Viewer Version 3.5. [Table 2-1](#) lists the Windows XP patches required for the upgrade.

Table 2-1 *Windows XP Patch Numbers for Upgrade*

Patch Number	Description
811630	Critical Update
Q817287	Critical Update (Catalog database corruption in Windows XP)
Q329441	Critical Update
814033	Critical Update
810565	Critical Update
815485	Recommended Update
—	DirectX 9.0a End-user Runtime
814995	Recommended Updated
Q322011	Recommended Update
Q327405	Recommended Update
327979	Recommended Update

Before You Begin

IP/TV Viewer product files are provided on a CD-ROM or to your system administrator for network installation.

Before you install IP/TV Viewer, perform the following tasks:

- Verify that your system meets the requirements described in the “[Hardware and Software Requirements](#)” section.
- Verify which TCP/IP protocol stack you will use. For Windows 98, Windows 2000, Windows NT, or Windows XP, the Microsoft TCP/IP stack is recommended.

If the TCP/IP stack is not already installed, you must install it before you install IP/TV Viewer. Refer to the documentation shipped with the TCP/IP stack for the installation procedure.

If you are the system administrator installing IP/TV Viewer on multiple computers, it might be useful to customize your installation by using the `iptv.ini` file located on the IP/TV CD-ROM. Refer to the *Cisco IP/TV Administration and Configuration Guide* for information on completing a network installation of IP/TV Viewer and using the Silent Install mode.

Installation Procedure

The IP/TV product CD-ROM contains the installation programs for IP/TV Viewer, IP/TV Server, and network installation. To install any of the IP/TV products, you must have purchased a license from Cisco Systems.

To install IP/TV Viewer, follow these steps:

-
- Step 1** Boot your computer and start Windows.
- Step 2** Insert the IP/TV CD-ROM into the CD-ROM drive on the computer (usually drive D:).
- If your CD-ROM drive is configured with Auto Insert Notification enabled, the Cisco IP/TV Installer window appears automatically.
 - If you do not have Auto Insert Notification enabled, double-click **setup.exe** in the Cisco IP/TV folder.

- Step 3** The Cisco IP/TV Installer window appears. Click **Next**.
- If you already have a version of IP/TV Viewer installed, follow [Step 4](#) and [Step 5](#).
 - If you do not have IP/TV Viewer installed, go to [Step 6](#).
- Step 4** In the Install Wizard window, choose the **Remove** radio button and click **Next**.
The Install Wizard uninstalls the previous version.
- Step 5** In the Cisco IP/TV folder, click **setup.exe**.
- Step 6** The Cisco IP/TV Installer window appears. Click **Next**.
- Step 7** The Software License Agreement window appears. If you agree to the license terms, click the **I accept** button.



Note If you are running Windows NT and do not have sufficient privileges to update the registry, the install Setup program displays an error message and closes. Contact your system administrator for assistance in setting your privileges to the level required to update the registry.

- Step 8** In the Customer Information window, enter your name and your company name, and click **Next**.
- Step 9** In the Destination Directory window, optionally use the **Browse** button to override the default directory in which IP/TV Viewer will be installed (C:\Program Files\Cisco Systems\IPTV Viewer). We recommend that you use the default. Click **Next**.
- Step 10** In the Ready to Install the Program window, click **Install** to begin installation. If you want to review or change any of your installation settings, click **Back**.
- Step 11** After the InstallShield Wizard has successfully installed IP/TV Viewer, click **Finish** to exit the wizard.
-

IP/TV Viewer Demo Installation

Cisco offers demonstration versions of IP/TV Viewer and the MPEG-2 decoder and also IP/TV Server and IP/TV Content Manager.

The IP/TV Viewer and MPEG-2 decoder demo, together with the IP/TV Server and IP/TV Content Manager demo, permits a customer to see the capabilities of IP/TV. The IP/TV Server and IP/TV Content Manager demo provides both prerecorded files shipped with the demo and one channel configured for live capture. This channel supports only H.261 and MPEG-2.



Note

You must install IP/TV Server and IP/TV Content Manager on one PC and IP/TV Viewer and the MPEG-2 decoder on another PC. Then, you must manually enable IP/TV Server and IP/TV Content Manager to begin transmission. You cannot view any programs on the IP/TV Viewer demo until the IP/TV Server and Content Manager demo is installed on another device and IP/TV Viewer is configured for this server. See the [“Setting IP/TV Viewer Options”](#) section on page 3-6.

To install a demo version, follow these steps:

-
- Step 1** Boot your computer and start Windows.
- Step 2** Insert the IP/TV CD-ROM into the CD-ROM drive on the computer (usually drive D:).
- If your CD-ROM drive is configured with Auto Insert Notification enabled, the Cisco IP/TV Installer window appears automatically.
 - If you do not have Auto Insert Notification enabled, choose **Start > Run** and enter the following command (assuming that D: is your CD-ROM drive) in the Run dialog box:


```
D:\setup
```

After a few moments the Setup program displays the Cisco IP/TV Installer window.
- Step 3** Choose **Demo Install > IP/TV Viewer and MPEG-2 Decoder**. The demo installation program begins.
- Step 4** The Cisco IP/TV Installer window appears. Click **Next** to continue.
- Step 5** The InstallShield Wizard window appears. Click **Next** to continue.

- Step 6** The Software License Agreement window appears. If you agree to the license terms, choose the corresponding button and click **Next**.
- Step 7** In the User Information window, enter your name, your company name, and whether you are installing the application for all users of the local machine or only for a particular user. Click **Next** to continue.
- If you run the installation on Windows 98, the “Install this application for:” radio buttons are hidden, and the demo is automatically installed for current user or all users based on whether profiles are enabled. Similarly, if you do not have administrator privileges and run the installation on Windows NT, the radio buttons are hidden, and the demo and its shortcuts are installed only for the current user. On Windows XP, the radio buttons are visible and you must have administrator privileges.
- Step 8** In the Demo Server Host Information window, enter the fully qualified domain name of the demo server or the demo server IP address. Click **Next**.
- Step 9** In the Destination Directory window, you can use the **Change** button to override the default directory in which IP/TV Viewer will be installed (C:\Program Files\Cisco Systems\IPTV Viewer). However, we recommend that you use the default. Click **Next**.
- Step 10** In the Ready to Install the Program window, click **Install** to begin installation. If you want to review or change any of your installation settings, click **Back**.
- Step 11** After the InstallShield Wizard has successfully installed IP/TV Viewer, click **Finish** to exit the wizard.
- The demo viewer installs the MPEG-2 software decoder to demonstrate IP/TV MPEG-2 quality.



Note The MPEG-2 decoder is not installed by the IP/TV Viewer installation procedure and should be purchased separately.

Incremental Installer for IP/TV Viewer

The incremental installer feature allows you to upgrade IP/TV Viewer by updating only those files that have changed from the version already installed.

You can click **update.exe** from the product CD to automatically update IP/TV Version 3.x installations to IP/TV Version 3.5.

Uninstalling IP/TV Viewer

We recommend that you close IP/TV Viewer before uninstalling it. To uninstall IP/TV Viewer, use the Windows Add/Remove Programs utility.



Getting Started

This chapter describes the procedures for launching IP/TV Viewer, navigating in the IP/TV Viewer main window, and setting IP/TV Viewer options. This chapter contains the following sections:

- [Launching IP/TV Viewer, page 3-1](#)
- [Navigating in IP/TV Viewer, page 3-2](#)



Note

To customize the IP/TV Viewer main window interface including the toolbars, see [Chapter 5, “Customizing the User Interface.”](#)

Launching IP/TV Viewer

You can launch IP/TV Viewer in several different ways:

- As a standard application
- As a web browser plug-in
- As a web browser helper application

As a Standard Application

You can launch IP/TV Viewer as a standard application. Choose **Start > Programs > Cisco IPTV Viewer > IPTV Viewer**. The IP/TV Viewer main window appears. (See [Figure 3-1](#).)

In most cases, IP/TV Viewer is installed in this location. If you specified another location during installation, review the information that you entered in [Step 9](#) of the “[Installation Procedure](#)” section in [Chapter 2](#).

**Note**

The first time you launch IP/TV Viewer after installation, prompts appear advising you to enter user information and assign IP/TV Content Managers (if none have been assigned). Click **OK** to enter user information and IP/TV Content Managers. For more information, see the “[Entering User Information](#)” section on [page 3-11](#). If you are upgrading from an earlier version, then all previous settings are retained and no prompts will appear.

As a Web Browser Plug-In or Helper Application

You can launch and run IP/TV Viewer as a plug-in or helper application for both Netscape Navigator and Microsoft Internet Explorer. For more information, see [Chapter 6](#), “[Using IP/TV in a Web Browser](#).”

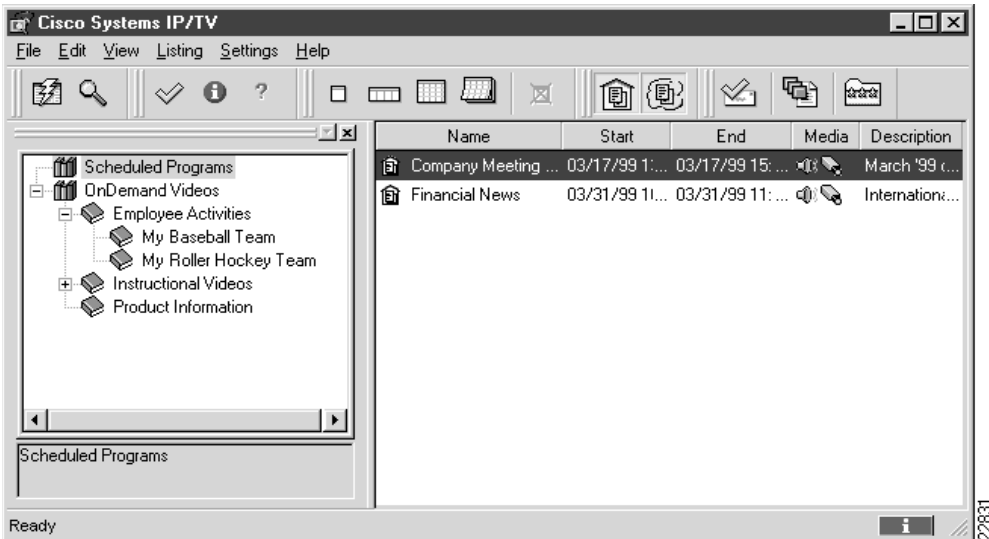
Navigating in IP/TV Viewer

After you start IP/TV Viewer, the main window appears. (See [Figure 3-1](#).) This window contains two panes: the Program Categories pane on the left and the Program Listings pane on the right.

**Note**

You can set up IP/TV Viewer to automatically play the last watched program when you launch IP/TV Viewer. See the “[Setting Window Display Options](#)” section on [page 3-10](#).

Figure 3-1 IP/TV Viewer Main Window



Program Categories Pane

From the Program Categories pane, you can choose the program category you want to view in the Program Listings pane.

Scheduled program listings from all IP/TV Content Managers are grouped in the Scheduled Programs folder. On-demand programs listings are listed in a separate folder for each IP/TV Content Manager, defined individually by the IP/TV Content Manager administrator.

Normally, your system administrator assigns IP/TV Content Managers used by IP/TV Viewer using the default host name *iptvhost*. The information displayed in the Program Categories pane will look something like the left side of Figure 3-1. A status bar at the bottom of the Program Categories pane identifies the selected folder.

To display all the scheduled program listings in the Program Listings pane, click the **Scheduled Programs** folder.

To display on-demand program listings, double-click the particular OnDemand Videos folder. Or click the plus sign (+) to the left of the OnDemand Videos folder to display subfolders or categories, if present. Click a category to display the listings in the Program Listings pane.

To manually refresh the program listings at any time, click the **Refresh Listings** button. See [Appendix A, “Menu Bar and Tool Icon Reference,”](#) for a complete list of IP/TV Viewer buttons and icons.

Program Listings Pane

The Program Listings pane lists all scheduled programs or on-demand programs from a designated category. Scheduled program information includes program name, starting and ending times, media type (audio, video, SlideCast, and Web Presenter), and a brief program description. On-demand program information includes program name, video or audio length, media type, and brief program description.

You can display programs by the current day, week, month, or year. You can also show or hide external, local, or past programs. Choose **Listing > Show** or use the toolbar buttons.

You can sort scheduled programs by choosing the **Listing > Sort** menu item or clicking column headers.

Setting Up Personal Selections

Use the Personal Selection toolbar buttons to display windows that list subscribed programs, on-demand programs you select to play back to back in a playlist, and programs you select as your favorites. The Personal Selections toolbar has three buttons: Subscriptions, OnDemand Playlist, and Personal Favorites.

Subscriptions Window

Click the **Subscriptions** button to display the Subscriptions window. This window lets you quickly access all scheduled programs to which you have subscribed.

When you subscribe to a scheduled program, its name and start time are listed in

the Subscriptions window. You can drag the program to which you want to subscribe from the Program Listings pane to the Subscriptions window, or use the **Subscribe** command. See the [“Subscribing to a Program”](#) section on page 4-25.

OnDemand Playlist Window

Click the **OnDemand Playlist** button to display the OnDemand Playlist window. This window lists on-demand programs by name and length that will play back to back. See the [“Assigning Favorite Programs”](#) section in Chapter 4 for more information about creating an on-demand playlist.

Favorites Window

Click the **Personal Favorites** button to display the Favorites window. This window lists scheduled and on-demand programs that you assign as favorites. This window lets you quickly access the programs you often watch. Each program name is listed. All programs you assign to the Favorites window appear in the Change program list box when you watch a program. See the [“Assigning Favorite Programs”](#) section in Chapter 4 for more information about creating a list of favorites.

Using Popup Menus

From the Program Listings pane or Subscriptions, OnDemand Playlist, or Favorites windows, you can display a popup menu by right-clicking the mouse. In the Program Listings pane, a popup menu appears with the following options: Copy, Watch Program Now, Select Stream, Subscribe, and Program Information. The Subscriptions, OnDemand Playlist, and Favorites windows display popup menus with the following options: Copy Program, Watch Program Now, Select Stream, Remove from List, and Program Information.

You can also display another popup menu that lets you turn docking on or off, or hide panes.

See [Chapter 5, “Customizing the User Interface,”](#) for information about customizing the IP/TV main window interface.

Setting IP/TV Viewer Options

This section describes how to set up the following IP/TV Viewer options:

- [Assigning Content Managers](#)
- [Using SDP Listener](#)
- [Setting Window Display Options](#)
- [Entering User Information](#)
- [Configuring a Multihomed Host](#)

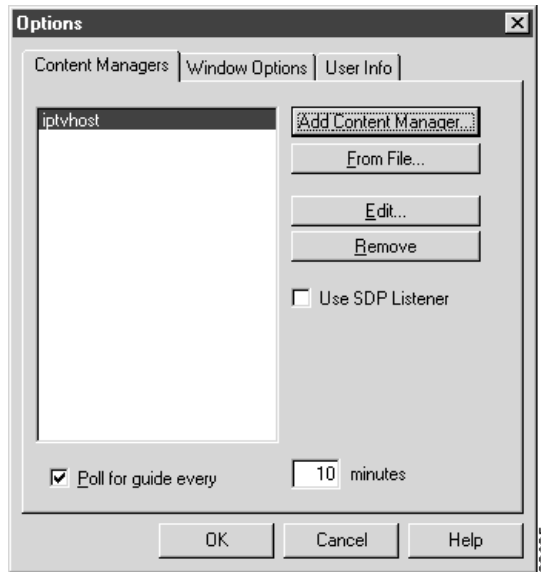
Assigning Content Managers

Each time you start IP/TV Viewer, a new copy of the program listing is downloaded from one or more IP/TV Content Managers.

In order to obtain the program listing, you need to add the IP address or name of the computer on which IP/TV Content Manager is installed to the list on the Content Managers tab.

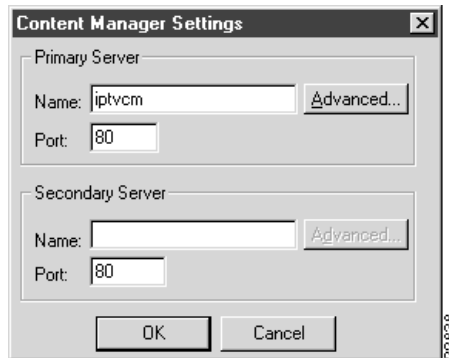
To add one or more IP/TV Content Managers, choose **Settings > Content Managers** to display the IP/TV Options dialog box with the Content Managers tab on top. If an IP/TV Content Manager has been previously added to IP/TV Viewer, its name is already listed on this tab.

The Poll for guide every check box determines how often (in minutes) IP/TV Viewer polls IP/TV Content Manager for new programs. The default is 10 minutes. (See [Figure 3-2](#).) If left unchecked, IP/TV Viewer will not poll for new programs.

Figure 3-2 Options Dialog Box—Content Managers Tab

To add a new IP/TV Content Manager, click **Add Content Manager** to display the Content Manager Settings dialog box. (See [Figure 3-3](#).) If desired, you can configure content information from a file by clicking **From File**. The file must have an .sdf extension.

You can also edit an existing IP/TV Content Manager by choosing the server name and then clicking **Edit**. To remove an existing IP/TV Content Manager, choose the IP/TV Content Manager that you want to remove and click **Remove**.

Figure 3-3 Content Manager Settings Dialog Box

In the Primary Server Name field, enter the IP address or name of the IP/TV Content Manager whose program listing you want downloaded to IP/TV Viewer. In [Figure 3-3](#), the name of IP/TV Content Manager is `iptvcm`. The default IP/TV Content Manager name is `iptvhost`.

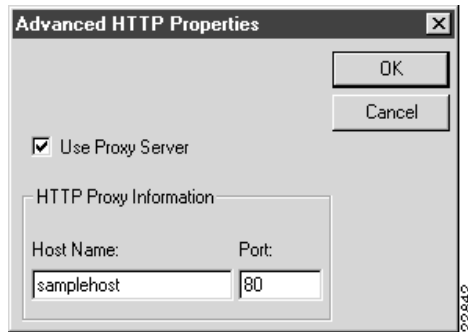
The default port number for most HTTP servers is 80. For security purposes you can set it to some number other than 80.

**Note**

Consult with your system administrator before changing this default value.

You can enter a secondary IP/TV Content Manager in case the primary IP/TV Content Manager fails to download the program list. The secondary IP/TV Content Manager is essentially a backup IP/TV Content Manager. Consult your system administrator for this information.

To add proxy server settings that let you connect to an IP/TV Content Manager by going around its firewall, click **Advanced**. The Advanced HTTP Properties dialog box appears. (See [Figure 3-4](#).)

Figure 3-4 Advanced HTTP Properties Dialog Box**Note**

Consult with your system administrator for the proxy server information.

Using SDP Listener

Typically, IP/TV Viewer obtains its programming information from the IP/TV Content Managers of your company. However, IP/TV Viewer can use the Cisco SDP Listener to obtain programming information. SDP Listener listens directly to programming information available on the Internet and on your corporate intranet.

SDP Listener is a process that runs on the client and listens for programs announced through SDP. This is different from the periodic polling of IP/TV Content Manager by IP/TV Viewer, which is a continuously running process. SDP Listener is started when you check the **Use SDP Listener** check box in the Content Manager tab, and closes when you exit IP/TV Viewer. There may be some delay between starting IP/TV Viewer and seeing a complete listing of available programs, because SDP Listener does not learn about the programs until they are advertised on SDP again. For more information on SDP announcements, refer to the “Sending and Receiving Session Announcements” section in Chapter 7 of the *Cisco IP/TV Administration and Configuration Guide*.

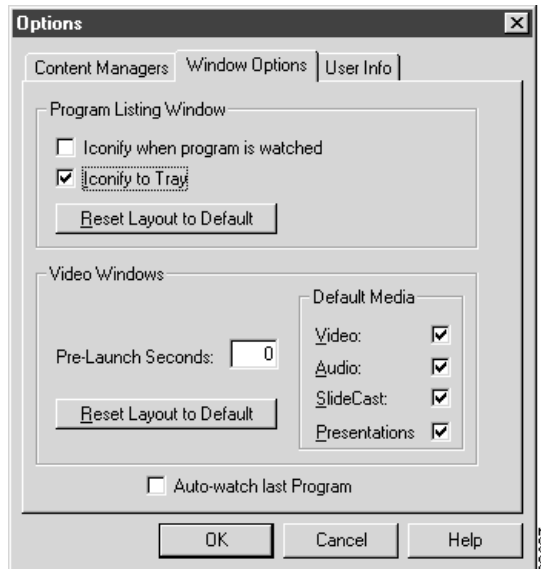
**Note**

We recommend that you consult with your network administrator before choosing to use SDP Listener. It is possible you will not receive all available scheduled programming without assigning an IP/TV Content Manager.

Setting Window Display Options

The Options dialog box lets you customize the Program Listings pane and viewer window interface. Open the Options dialog box by choosing **Settings > Window Options** from the IP/TV Viewer main window. (See [Figure 3-5](#).)

Figure 3-5 Options Dialog Box—Window Options Tab



Choose the desired options and then click **OK**. [Table 3-1](#) describes these options.

Table 3-1 Window Options

Option	Description
Iconify when program is watched	If checked, the IP/TV Viewer main window automatically appears in iconic form when you begin watching a program.
Iconify to Tray	If checked, the IP/TV Viewer main window automatically appears in iconic form in the tray when you minimize the window.

Table 3-1 Window Options (continued)

Option	Description
Pre-Launch Seconds	Number of seconds the viewer window is opened before a subscribed program begins. This option prevents you from missing the beginning of a scheduled program in the event that the clock of your computer is not set to the exact same time as the server clock.
Auto-watch last Program	If checked, the last program you watched is initially displayed in the video window.
Reset Layout to Default	Click this option to reset either the IP/TV main window or viewer window to the default user interface configuration. You must restart IP/TV to reset the main window. Resetting the viewer window requires exiting only the viewer window and not the whole IP/TV application.
Default Media	Filter on which media is displayed when you watch a program. You can override default values on a per-program basis. For example, a remote sales office with a low-speed link to the company network might disable video by default because all it needs is the audio stream.

Entering User Information

For management, administrative, or tracking purposes, you may want to enter IP/TV Viewer user information. (See [Figure 3-6](#).) This information is also forwarded to a moderator when you use the StreamWatch monitoring application.

Figure 3-6 Options Dialog Box—User Info Tab

The screenshot shows a dialog box titled "Options" with a close button (X) in the top right corner. It has three tabs: "Content Managers", "Window Options", and "User Info". The "User Info" tab is selected. The dialog is divided into three sections:

- Name:** A text field containing "Joe Smith".
- Location:** A group box containing:
 - Address:** "123 Your Company Street"
 - City:** "Your City"
 - State:** "CA" (with a dropdown arrow)
 - Zip:** "12345"
- Contact Info:** A group box containing:
 - Phone:** "555-1234"
 - E-Mail:** "joe@yourcompany.com"

At the bottom of the dialog are three buttons: "OK", "Cancel", and "Help". A vertical text string "020306" is visible on the right side of the dialog box.

Choose the desired options and then click **OK**. [Table 3-2](#) describes these options.

Table 3-2 User Information Options

Field	Description
Name	Name of the user. Resets the registry information for the user and company from the IP/TV Viewer installation. You can change this information if needed.
Location	Business address of the user.
Contact Info	Telephone and e-mail address.

Configuring a Multihomed Host

If you have more than one network interface card in your system, you need to specify which IP host address you wish to use in order to receive multicast scheduled programs. You can do this by adding the following instructions to the iptv.ini file:

```
[rtp_spec]
...
...
; Multihomed support on an IP/TV Viewer
LocalInterface=w.x.y.z
; where w.x.y.z is the IP address of the interface which will
; be receiving multicast data.
...
...
```




Using IP/TV Viewer

This chapter describes how to use IP/TV Viewer. Topics include the following:

- [Displaying Program Information, page 4-2](#)
- [Playing a Program, page 4-10](#)
- [Playing a Web Presenter Program, page 4-22](#)
- [Playing a SlideCast Program, page 4-23](#)
- [Playing a ScreenCaster Program, page 4-25](#)
- [Subscribing to a Program, page 4-25](#)
- [Assigning Favorite Programs, page 4-26](#)
- [Searching for a Program, page 4-28](#)
- [Using Question Manager, page 4-32](#)
- [Advanced Topics, page 4-35](#)

Displaying Program Information

You can display scheduled programs by the current day, week, or month menu item or by clicking column headers. Program information includes the following: program description and administrator information, associated web files, schedule and subscription information, and video, audio, SlideCast, Question Manager, diagnostic, and SDP information.

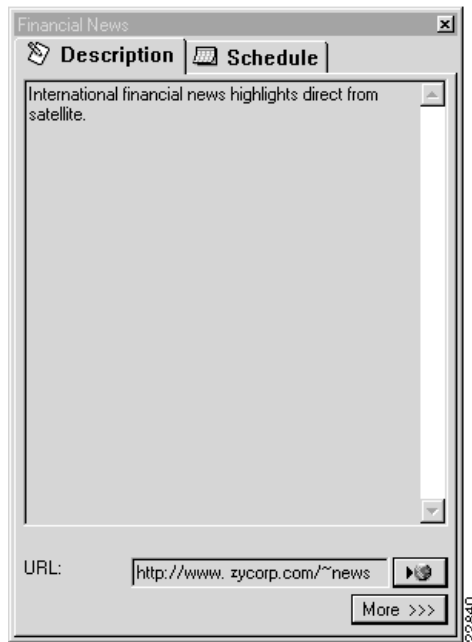
To display the Program Information window, perform the following steps:

-
- Step 1** In the IP/TV Viewer main window, highlight the program name whose information you want to view.
 - Step 2** Choose **View > Program Information**. Or, after choosing the program name, right-click to display a popup menu and click **Program Information**. The Program Information window appears.
-

Program Description Information

The Description tab in the Program Information window displays the program description. (See [Figure 4-1](#).) If the program has a predefined URL, it is displayed in the URL field. Click the button to the right of the URL field to launch your default web browser and jump to the URL location. The URL location is typically a web page that contains additional information about the program.

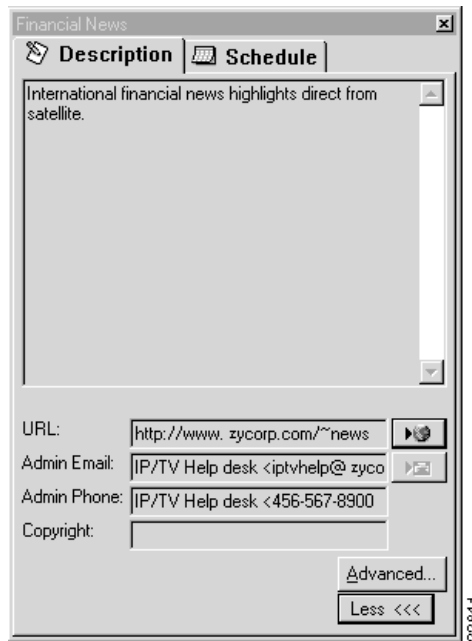
Figure 4-1 Description Tab in Program Information Window



Click **More** to display more detailed information about the program. The detailed Description tab (see [Figure 4-2](#)) displays information such as the name, phone number, and e-mail address of the program administrator, if available.

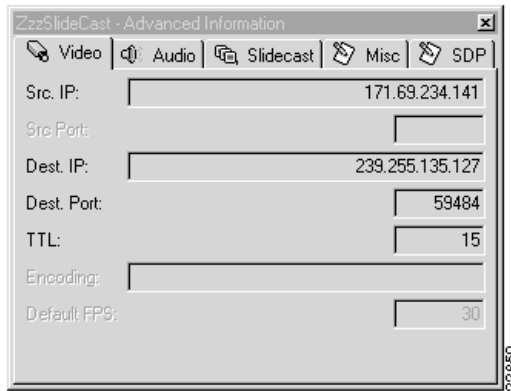
Click the button to the right of the Admin Email field to send e-mail to the address displayed in the e-mail field.

Using the **Send Mail** button invokes your e-mail application. Your e-mail application must support the Mail Application Programming Interface (MAPI) to use this feature. If your mail application does not support MAPI, then send mail directly through your e-mail application.

Figure 4-2 Detailed Description Tab in Program Information Window

Video, Audio, and SlideCast Information

System administrators who want to view program video, audio, and SlideCast information can click **Advanced** (see [Figure 4-2](#)) located in the detailed Description tab window. The Advanced Information window appears with the Video tab on top. (See [Figure 4-3](#).)

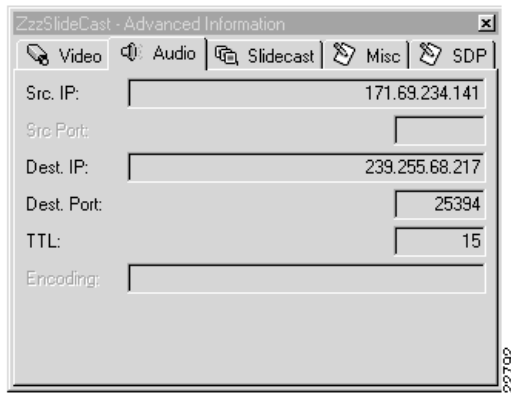
Figure 4-3 Video Tab in Advanced Information Window

Video, audio, and SlideCast information is described in [Table 4-1](#).

Table 4-1 Video and Audio Program Information

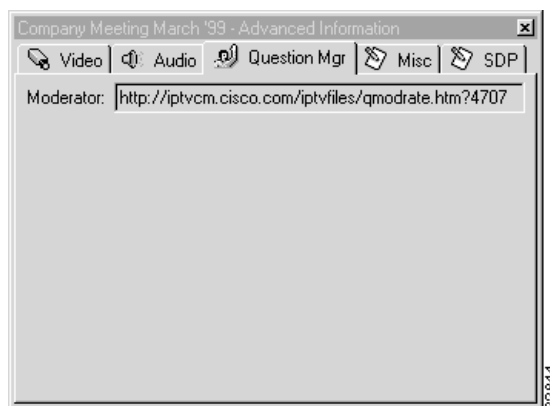
Field	Description
Src IP	IP address of the media server.
Src Port	Port number of the media server.
Dest IP	Multicast IP address to which the media is sent.
Dest Port	Port number associated with the destination IP address.
TTL	Time To Live value.
Encoding	Type of codec used.
Default FPS	Default frames per second (video only).

To view audio information, click the **Audio** tab. (See [Figure 4-4](#).)

Figure 4-4 Audio Tab in Advanced Information Window

Question Manager Information

If a program has Question Manager enabled, click the **Question Mgr** tab in the Advanced Information window to view Question Manager information. (See [Figure 4-5](#).) The Moderator field contains the web page address of the moderator.

Figure 4-5 Question Manager Tab in Advanced Information Window

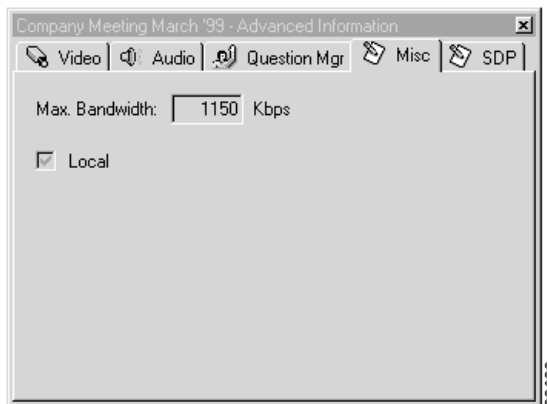
Setting Maximum Bandwidth

The system administrator enters the maximum bit rate value while creating the program using IP/TV Content Manager. IP/TV Server uses this value as the upper limit of the network resources it is permitted to use for the total combined streams associated with the program. Types of streams include video, audio, and SlideCast bandwidth resources.

If you have a slow connection, you may want to know the bandwidth required by the program in order to decide which media streams to receive.

To view the maximum bandwidth of a program, click the **Misc** tab in the Advanced Information window. (See [Figure 4-6](#).)

Figure 4-6 Misc Tab in Advanced Information Window



This tab also indicates whether the program is a local intranet program.

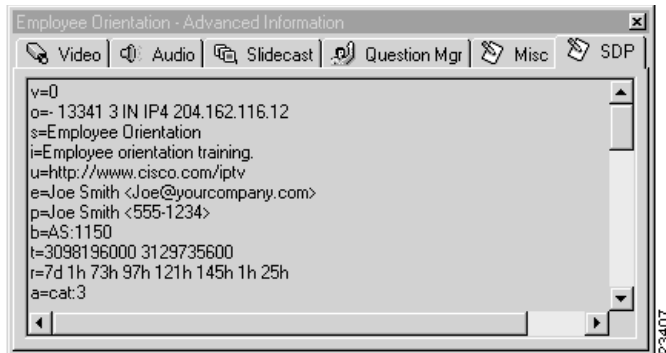
SDP File Information

To view the SDP file information of a program, click the **SDP** tab in the Advanced Information window. (See [Figure 4-7](#).)



Note

This information may be useful to Cisco Systems Technical Support staff.

Figure 4-7 SDP Tab in Advanced Information Window

Schedule and Subscription Information

You can view schedule and subscription information about a scheduled program. Do this by clicking the **Schedule** tab in the Program Information window. (See [Figure 4-8](#).)

Figure 4-8 Schedule Tab in Program Information Window

The screenshot shows a window titled "Financial News" with two tabs: "Description" and "Schedule". The "Schedule" tab is active. The fields are as follows:

- Current Time: 03/15/99 15:41:57
- Previous Start Time: (empty)
- Next Start Time: 03/31/99 10:00:00
- Length: 1 Hour
- Repeat Schedule: Mar 31 1999
- Initial Start Time: 03/31/99 10:00:00
- Final Start Time: 03/31/99 10:00:00
- Subscription: None

Schedule and subscription information is described in [Table 4-2](#). See the “[Subscribing to a Program](#)” section on [page 4-25](#) for information about how to subscribe to scheduled programs.

Table 4-2 Schedule and Program Subscription Information

Field	Description
Current Time	Current system time.
Previous Start Time	Previous time the program was scheduled to begin.
Next Start Time	Next time the program is scheduled to begin.
Length	Length of the program in days, hours, and minutes.
Repeat Schedule	Date and times the program is scheduled to play.
Initial Start Time	First time the program played.

Table 4-2 Schedule and Program Subscription Information (continued)

Field	Description
Final Start Time	Last time the program will play.
Subscription	Current subscription of the user to this program. Values are None, All, or a specific date and time.

Playing a Program

You can play a scheduled program by selecting it from the Program Listings pane or subscribing to it. You can play an on-demand program by selecting it from the Program Listings pane or the OnDemand Playlist window. You can also play both types of programs by selecting them from the Favorites window.

Figure 4-9 shows a scheduled program being played. Figure 4-10 shows an on-demand program being played. Both program windows contain identical Change Program lists, toolbar buttons, and status bar information.

The on-demand program window also contains two Quality of Service (QoS) indicators, which mean that QoS is enabled for this transmission. QoS can be enabled for both scheduled and on-demand programs.

Refer to the *Cisco IP/TV Content Manager User Guide* for more information regarding QoS.

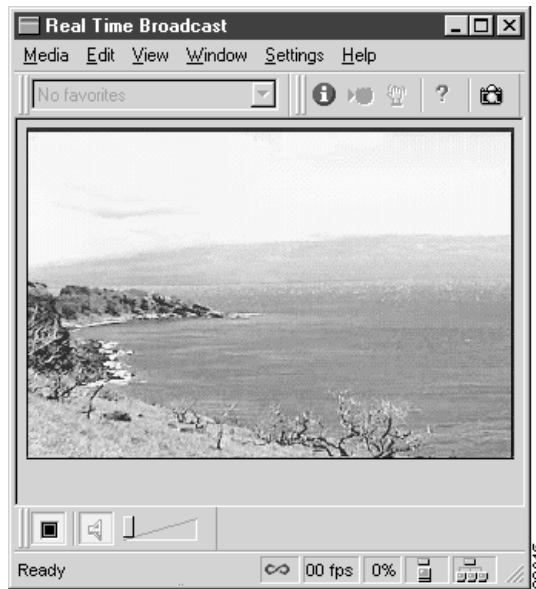
The Change Program list displays all the programs that you have assigned to the Favorites window. Use this list to quickly find your favorite programs.



Note

The Frame Rate Statistics box, located on the status bar, is disabled for programs that are served by Windows Media Services.

Figure 4-9 Scheduled Program Playing



Note, however, that the program windows have different Video Cassette Recorder (VCR) controls. VCR controls let you stop or play the program, control the audio, and in the case of on-demand programs, set the position of the video. See the [“Controlling Audio and Video”](#) section on page 4-12 for more information on VCR controls.

Figure 4-10 On-Demand Program Playing



Controlling Audio and Video

You can control the audio and video portions of a program while it is playing by using the VCR controls located at the bottom of the viewer window. You can also control the media streams that are received by the program; however, you must select them before playing the program.

Adjusting Audio Level

Adjust the volume on both a scheduled and an on-demand program by moving the slider to the right or left. The Mute Audio button mutes (a red slash through the icon) or resumes (no red slash) the audio portion of the program. (See [Figure 4-9](#).)

Controlling and Setting the Video Position

Control the position of the video for an on-demand program while you are watching it by using the following on-demand VCR controls:

- Jump To Beginning button
- Jump Back button
- Jump Forward button
- Jump To End button
- Position Control slider bar
- Change Play Position option

The Jump To Beginning button positions the video back to its beginning with a time offset of zero.



Note

You may not always be able to view the actual or true beginning of the video until audio and video synchronization is achieved.

The Jump Back button positions the video back in time 10 percent of the overall duration of the program. If there is less than 10 percent preceding the current position, the program is set to position zero.

The Jump Forward button positions the video forward in time 10 percent of the overall duration of the program. If there is less than 10 percent remaining from the current position, the program is set to its end.

The Jump to End button positions the video to its end.

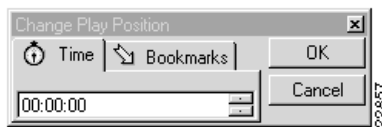
The Position Control slider bar lets you fast-forward or rewind video segments while watching the program. Slide the bar to the right to fast-forward, or slide it to the left to rewind. The highest possible precision of the slider is measured in seconds. Whenever you move the mouse over the Position Control slider bar, the Position button appears above the control. This button shows the time (hh:mm:ss) in terms of video location. Moving the slider bar updates the time shown on the Position button. Releasing the slider bar causes the program to seek that new location in time.

**Note**

There is a slight delay, typically 2 to 3 seconds, in the video when you change position until IP/TV Server and IP/TV Viewer resynchronize through the network. Network traffic may also affect response time.

To set the position of the video in terms of time, click **Select Position** to display the Change Play Position dialog box. (See [Figure 4-11](#).)

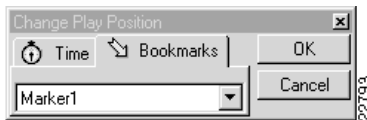
Figure 4-11 Change Play Position Dialog Box—Time Tab



To set the position of the video, click the **Time** tab and enter hours, minutes, and seconds in the format hh.mm.ss. Click **OK**. The position of the video is changed to the selected time and the dialog box closes.

The Bookmarks tab appears only if the author of the program used an .asf file that contains markers. (See [Figure 4-12](#).) A marker is a pointer to a specific time in an .asf file. Markers allow you to move through an .asf file any way you want. You can go ahead or go back to a previous marker to view a portion of the video. To change the position of the video, choose the desired marker and click **OK**.

Figure 4-12 Change Play Position Dialog Box—Bookmarks Tab



Selecting Media Streams

The **Select Stream** option on the View menu lets you control the streams that are received by a given program. Media streams can be video, audio, SlideCast, or Web Presenter.

To choose the media streams for a program, choose the program whose streams you want to set. Choose **View > Select Stream** in IP/TV Viewer main window. The Select Stream dialog box appears. (See [Figure 4-13](#).)

Figure 4-13 Select Stream Dialog Box



Check the **Audio** check box to enable audio. Check the **Video** check box to enable video. To save memory, you can uncheck the Audio check box if you only want to watch a program, or uncheck the Video check box if you only want to listen to a program.

If you want to enable the SlideCast feature, then check the **SlideCast** check box if available. See the [“Playing a SlideCast Program”](#) section on page 4-23.

To enable the Web Presenter feature, check the **URL Flipping** check box. For more information, see the [“Playing a Web Presenter Program”](#) section on page 4-22.



Note

How you set the Default Media option in the Options dialog box affects the default streams selected. You can select either SlideCast or URL Flipping, but not both.

If the program is scheduled and you want to subscribe to it, click **Subscribe**. The program is automatically listed in the Subscriptions window. For more information about subscribing to programs, see the [“Subscribing to a Program”](#) section on page 4-25.



Note

You can subscribe only to scheduled programs.

Monitoring Quality

The IP/TV viewer window toolbar contains quality indicators to help you monitor the quality of video distribution to the user. There are two Quality of Service (QoS) indicators and two reception quality indicators.

QoS

For higher-quality transmission, IP/TV supports QoS using Resource Reservation Protocol (RSVP).



When QoS is enabled, two QoS indicators are present on the Reception toolbar in the viewer window. (See [Table 4-3](#).)



Note

QoS indicators are only visible when you are running IP/TV Viewer on Windows 2000.

Table 4-3 *Quality of Service Indicators*

Icon	Description
	Indicates the type of QoS video that is enabled for a given transmission.
	Indicates the type of QoS audio that is enabled for a given transmission.

Different levels of QoS are supported to solve video distribution problems and ensure that the appropriate network bandwidth will be available. These levels are:

- Best Effort (B)—Traffic will not receive priority treatment (the default).
- Guaranteed (G)—Traffic will receive guaranteed priority treatment (the preferred level).



- Controlled Load (C)—Traffic will receive nonguaranteed priority treatment similar to a network with no load.
- Qualitative (Q)—Traffic will receive nonguaranteed priority treatment.

Refer to the *Cisco IP/TV Content Manager User Guide* for information on how to enable and configure QoS parameters.

Reception Quality

Two reception quality indicators, located on the Reception toolbar in the viewer window, indicate reception quality levels. (See [Table 4-4](#).)

Table 4-4 Reception Quality Indicators

Icon	Description
	Shows the level of reception quality on your computer as detected by IP/TV Viewer.
	Shows the level of reception quality as detected by other workstations on the network that are viewing the same program. This receptor applies only to scheduled programs and not to on-demand programs.

These indicators change colors to reflect varying reception quality. (See [Table 4-5](#).)

Table 4-5 Indicator Colors

Color	Meaning
Green	Reception quality should be good. Video should be smooth and audio clear. If not, then the problem is usually the local machine or the content itself.
Yellow	Reception quality is fair. Video may be slightly jerky and audio may not be clear.

Table 4-5 *Indicator Colors (continued)*

Color	Meaning
Red	Reception quality is poor. Video may be very jerky and audio may not be clear.
Gray	Insufficient data has been reported for IP/TV to display quality levels. This indicator turns gray for a few seconds after a video window is opened, or if transmission is interrupted.

When IP/TV Viewer performance degrades for no apparent reason, you can use the reception quality indicators to determine whether the problem is local to your computer or common to other computers viewing the same program:

- If both indicators show poor reception quality levels, the problem is also detected by most or all of the computers viewing the same program. The problem is probably caused by a fault either in the server that is transmitting the program or in the network itself.

Contact the system administrator responsible for the server or a network manager for assistance.



Note If the program is an Internet-accessed Mbone session, the cause of poor reception might be external to your corporate network, and thus beyond the ability of your system administrator or network manager to correct.

- If the left indicator shows low reception levels while the right indicator shows normal levels, the problem is likely due to a fault somewhere with the local network or your computer.



Note If your computer does not meet the hardware requirements listed in [Chapter 2, “Installing IP/TV Viewer,”](#) your system may have insufficient processing power for the program you are viewing.

If these tips do not resolve the problem, contact your system administrator for assistance.

Viewing Modes

You can watch a program in one of three viewing modes: normal view, minimal view, and full-screen view.

Normal View

The first time a program is selected, the program appears in a viewer window that is in normal view mode. This viewer window includes the system menu icon in the upper left corner, menu bar, toolbar, VCR controls (on-demand programs only), an increase/decrease control, and status bar, along with the video image area. [Figure 4-9](#) is in the normal view mode.

In normal view mode, the system menu contains only standard Windows commands such as Restore, Move, Size, Minimize, Maximize, and Close.

Minimal View

To change to minimal view, click the system menu icon and then choose **Window > Minimal View**, or press the **PgDn** keyboard key. In minimal view mode, only the video image is present in the viewer window. The menu bar, toolbar, VCR controls, and status bar are hidden. (See [Figure 4-14](#).)

Figure 4-14 Minimal View Mode

In this mode, the system menu icon contains additional commands that are only accessible through the menu bar, toolbar, and VCR control bar.

To return to normal view mode, click the **system menu** icon and then choose **Restore Controls**, or press the **PgUp** keyboard key.

Full-Screen View

To watch a program in full-screen view, choose **View > Full Screen** or press the **Ctrl-PgUp** keys. The window borders will disappear. To return to normal view mode from full-screen, you can either click somewhere on the screen or press any key on the keyboard.

You cannot select minimal view or full-screen view for audio-only programs, as they do not have video image area. Full-screen view is not supported in viewer window while running SlideCast or Web Presenter streams.

Using Multiple Windows

IP/TV supports multiple viewer windows for both scheduled and on-demand programs. You can navigate among active IP/TV viewer windows by clicking the window or pressing the **Alt-Tab** keys. The audio will follow the active window.

Up to four viewer windows that are open at the same time are supported. However, IP/TV does not limit the number of viewer windows you can open at one time. If you have subscribed to more than four programs that run simultaneously, you will only receive four programs at one time. When one program ends and you close that viewer window, another program will begin playing.

**Note**

Displaying multiple IP/TV viewer windows may result in poor video performance, especially on less powerful computers. If you want the best possible quality, stop playing all IP/TV programs you are not watching and close other applications that you are not using.

IP/TV Viewer performs best on faster machines, and when receiving data through less congested networks. When these conditions are not met, IP/TV provides lower-quality reception.

If the video you are watching appears jerky and you notice that your computer has a lot of disk activity, your computer may be running low on memory.

Here are a few suggestions on how to get the best performance from IP/TV Viewer on your computer:

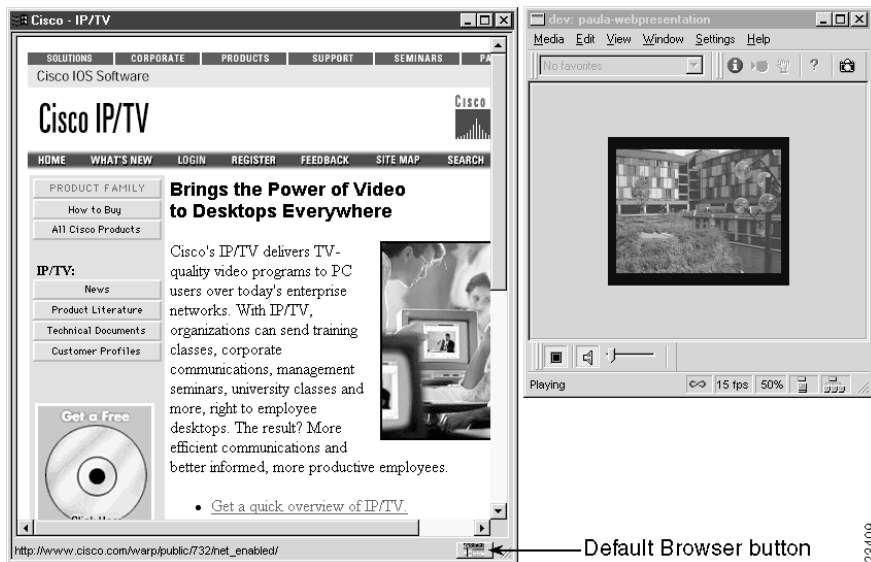
- Close applications you are not using, especially applications that require significant bandwidth on your local network.
- IP/TV supports multiple windows; however, you may want to close these windows rather than minimize them to receive multimedia streams.
- Trade sound quality for better video quality.
- If you only want to listen to a program while you are working in another program, you may want to disable the video. See the [“Advanced Topics” section on page 4-35](#).
- If the program is an MBone session, the cause of poor reception might be external to your corporate network, and thus beyond the ability of your system administrator or network manager to correct. Consult the contact person on the MBone program contact list regarding the quality of the MBone program.
- Use the Pause button if video is not needed.

Playing a Web Presenter Program

When you play a program that contains a web presentation, the viewer window launches and plays the audio or video file. The Presenter Client window, which displays web pages, also appears at the same time.

The web-based slides are HTML pages that are flipped in a designated sequence and at a designated time. The web-based slide presentation portion can be real-time web browsing, which is controlled by the person who is flipping the URLs. The presentation can also consist of a recorded .asf file that contains URL markers or a recorded .mp4 file that contains a URL track recorded during a live Web Presenter program.

Figure 4-15 Viewing a Web Presenter Program



The viewer window behaves in the same way as it does when you are watching any type of scheduled or on-demand program. If desired, you can open your default browser in another window by clicking the **Default Browser** button.



Note

Web Presenter does not support full-screen view.

Playing a SlideCast Program

IP/TV Viewer lets you play SlideCast presentations, which perform the following functions:

- Display an IP/TV Viewer with both audio and video together with a SlideCast presentation.
- Display an IP/TV Viewer with SlideCast and audio.
- Display an IP/TV Viewer with audio, and alternating video and SlideCast images.

Figure 4-16 shows an IP/TV Viewer with both audio and video.

Figure 4-16 IP/TV Viewer Audio/Video with SlideCast

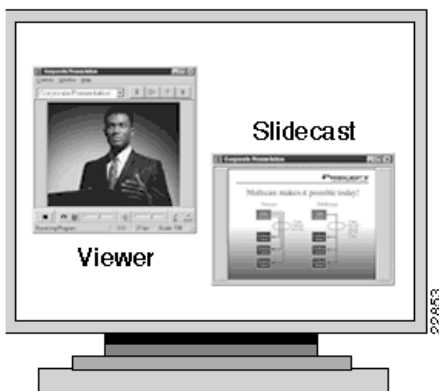


Figure 4-17 shows IP/TV Viewer with SlideCast and audio.

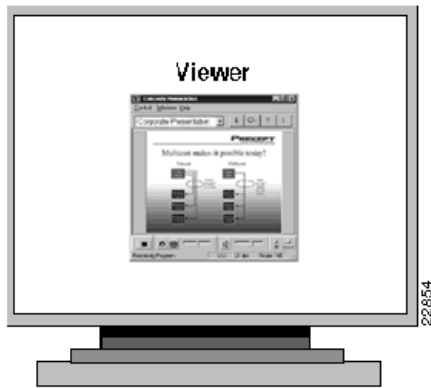
Figure 4-17 IP/TV Viewer with SlideCast and Audio

Figure 4-18 shows IP/TV Viewer with audio and alternating video SlideCast.

Figure 4-18 IP/TV Viewer with Audio and Alternating Video SlideCast

The SlideCast window contains two toolbar buttons: the **Stop/Play** toggle button and the **Pause/Restore** toggle button. Their functions are identical to those of the viewer window toolbar buttons.



Note SlideCast does not support full-screen mode.

Playing a ScreenCaster Program

With ScreenCaster you can:

- Add dynamically captured screen shots to a Web Presenter broadcast from various applications running in real time.
- Include screen shots of any size, up to the full desktop.
- Broadcast a web-based version of a PowerPoint presentation without preprocessing.
- Broadcast a PowerPoint presentation in “native” format, including animation and transition effects.

Subscribing to a Program

The easiest way to launch a scheduled program that is not currently playing is to subscribe to that program. When you subscribe to a program, IP/TV Viewer saves the information about the program you want to view and automatically launches a viewer window when it is time for the program to begin.



Note

IP/TV Viewer must be running to launch a subscribed program automatically. You can subscribe only to scheduled programs.

To subscribe to a scheduled program, follow these steps:

Step 1 From the IP/TV Viewer main window, display scheduled programs in the Program Listings pane.

Step 2 Choose the program you want to subscribe to and right-click to display the right popup menu. Choose **Subscribe**. The selected program is now listed in the Subscriptions window. You can also choose **View > Select Stream > Subscribe**.

A viewer window automatically launches and begins to play the program according to its play schedule.

To learn whether the program has scheduled repeated showings and to subscribe to one or more of the repeated showings, follow these steps:

-
- Step 1** Choose the scheduled program that you want to subscribe to in the Program Listings pane.
- Step 2** Click **Program Information** to display the Schedule tab. (See [Figure 4-8](#).)
- In the Repeat Schedule section of this tab are the date and times the program is scheduled to play. The initial and final start times of the program are also listed. The Repeat Schedule list displays a list of all repeats. Use the date range control arrows to move through the entire list.
- Step 3** To subscribe to one repeat showing, choose the desired repeat date from the list and click **Subscribe to one**. To subscribe to all repeats, click **Subscribe to all**.
-

Assigning Favorite Programs

You can create a customized list of favorite programs you watch frequently, and define a personal playlist of on-demand programs to play in succession.

Creating a Favorites List

All scheduled and on-demand programs you assign to the Favorites window are listed in the Program Change list in the viewer window when you watch a program. Use this list to quickly access your favorite programs.

To create a list of your favorite scheduled and on-demand programs, follow these steps:

-
- Step 1** From the IP/TV Viewer main window, click the **Favorites** button. The Favorites window appears.
- Step 2** Drag the desired program from the Program Listings pane directly to the Favorites window.
- You can add as many programs as you want to this window. You can drag both scheduled and on-demand programs. (See [Figure 4-19](#).)

Figure 4-19 Favorites Window with Sample Programs



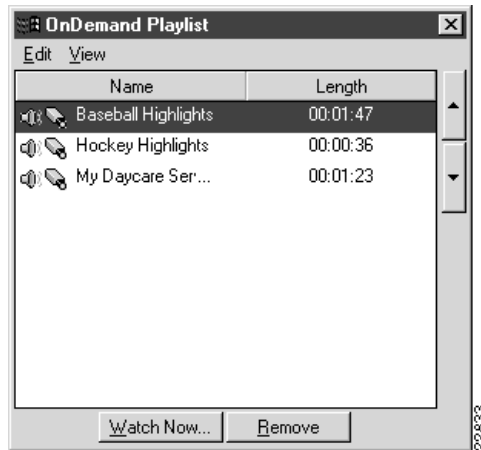
- Step 3** To remove a program from the list, choose the program you want to remove and click **Remove**.
-

Creating an On-Demand Playlist

To create a list of on-demand programs that you want to play in succession, follow these steps:

- Step 1** From the IP/TV Viewer main window, click the **OnDemand Playlist** button. The OnDemand Playlist window appears.
- Step 2** Make sure that the on-demand programs you want to add to the playlist are displayed in the Program Listings pane.
- Step 3** Drag the desired programs, one by one, from the Program Listings pane to the OnDemand Playlist pane. (See [Figure 4-20](#).)

Figure 4-20 OnDemand Playlist Window with Sample Programs



Step 4 Choose the program that you want to watch and click **Watch Now**.

Only programs that appear below the selected program on the list will play in succession. Use the up and down arrows to change the order of the programs in the list.

Step 5 To remove a program from the list, choose the program that you want to remove and click **Remove**.

Searching for a Program

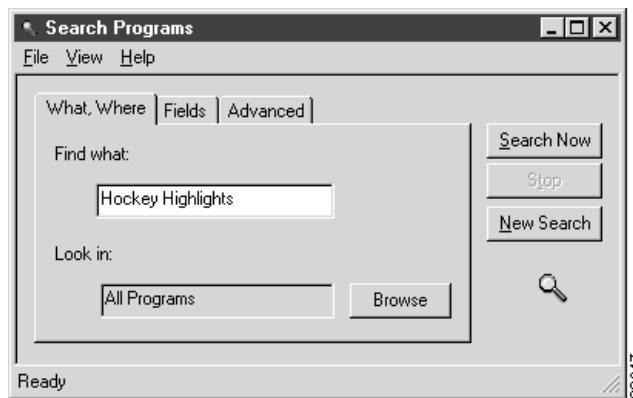
The IP/TV Viewer search feature lets you find a program listing by searching for selected keywords by field. The search feature is useful when you want to locate a scheduled program quickly and avoid scrolling through the program listings, or locate an on-demand program when you do not know the category under which it is listed.

To search for a scheduled or on-demand program listing, follow these steps:

Step 1 From the IP/TV Viewer main window, choose **Edit > Find**.

The Search Programs dialog box appears with the What, Where tab on top. (See [Figure 4-21](#).)

Figure 4-21 Search Programs Dialog Box—What, Where Tab



Step 2 Enter a string in the Find What field.

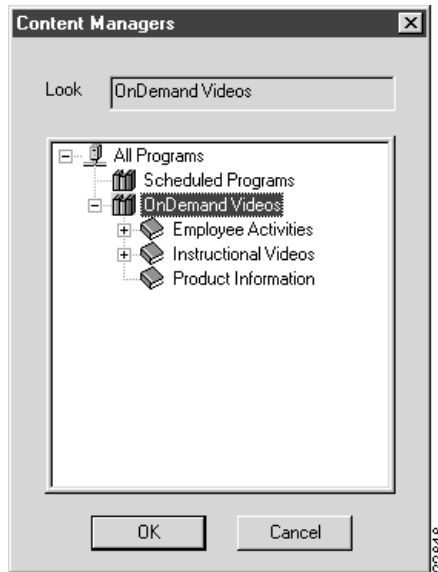


Note A string can be a word, phrase, or number against which the contents of a program listing are matched.

Step 3 Choose the IP/TV Content Manager categories that you want searched in the Look in field. You can search all or only specific categories.

To choose all programs, leave the Look in field as is. The default is All Programs. To choose a specific program category, click **Browse**. The Select Programs dialog box appears. (See [Figure 4-22](#).) Choose the desired program and click **OK**.

Figure 4-22 Select Programs Dialog Box

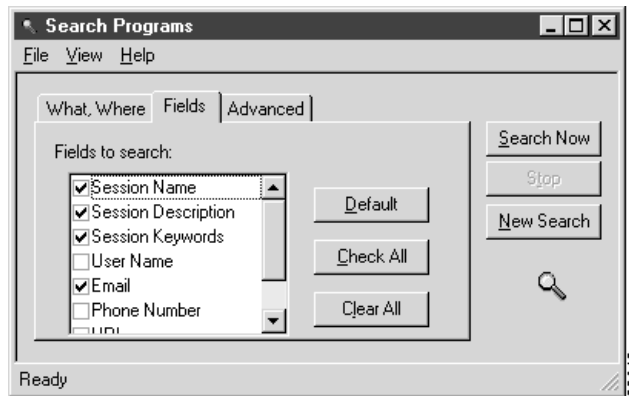


Step 4 Choose the **Fields** tab.

Choose the fields you want to search for a matching string.

All field information originated at the time the program was created in IP/TV Content Manager. (See [Figure 4-23](#).)

Figure 4-23 Search Programs Dialog Box—Fields Tab



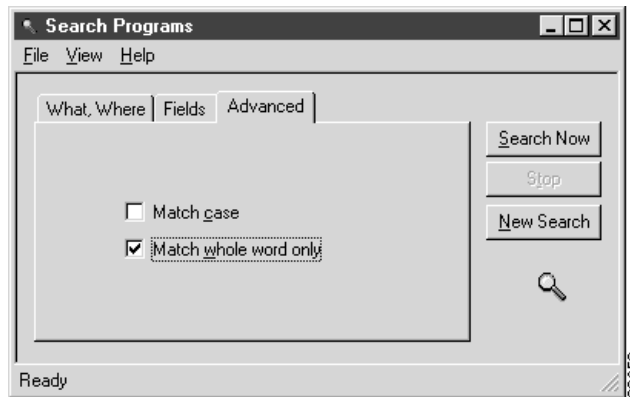
- Click **Check All** to select all fields.
- Click **Clear All** to clear all fields. [Table 4-6](#) describes the fields.

Table 4-6 Field Types

Field	Description
Session Name	Program name as set up in IP/TV Content Manager.
Session Description	Description of the program as set up in IP/TV Content Manager.
Session Keywords	Session keyword as set up in IP/TV Content Manager.
User Name	Username as set up in IP/TV Content Manager.
Email	E-mail address of the program administrator.
Phone Number	Phone number of the program administrator.
URL	URL path name, if specified in IP/TV Content Manager.
Copyright	Copyright as set up in IP/TV Content Manager.
Administrator	Name of the program administrator.

- Step 5** Choose the **Advanced** tab. (See [Figure 4-24](#).)
- Check the **Match case** check box if you want to match a string with specific capitalization.
 - Check the **Match whole word only** check box to match the whole string and not a subset.

Figure 4-24 Search Programs Dialog Box—Advanced Tab



- Step 6** Click **Search Now**. All programs that match the string are listed by name, media type, and description.
- Step 7** You can watch a program, display program information, or select media streams by clicking the desired program listing and choosing one of the options from the View menu.

Using Question Manager

Question Manager is an integrated feature that lets you interact with the moderator of an IP/TV program. It is useful for environments such as distance learning and training. It allows remote users to participate in the question and answer portion of the presentation. Question Manager lets you send questions to a moderator, but does not return answers to you.

The moderator can view the questions that apply to the program over the intranet, sort the questions, answer the questions as part of the presentation, export the questions to be stored, or delete the questions after the presentation.

To use Question Manager while viewing a program, Question Manager must be enabled. The Ask a Question toolbar button is active when enabled, and grayed out when disabled.

**Note**

Question Manager can only be used for scheduled programs.

There are different ways to access the Question Manager depending on the viewer you are using. The following sections explain how to access the Question Manager from IP/TV Viewer and different browser plug-ins.

Accessing Question Manager from IP/TV Viewer

To use Question Manager from IP/TV Viewer, follow these steps:

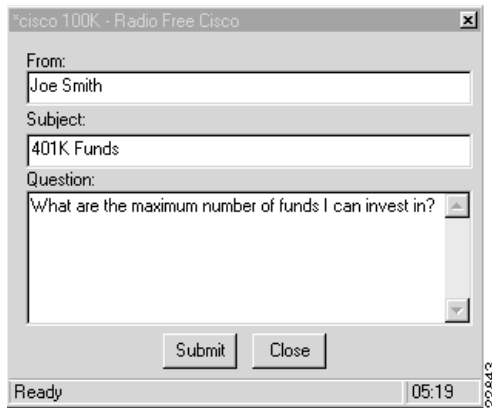
Step 1 Click the **Ask a Question button** in the IP/TV Viewer window to open the Question Manager window. Alternatively, choose **View > Ask a Question** in the IP/TV Viewer window menu bar.

The Question Manager dialog box opens. (See [Figure 4-25](#).)

Step 2 Enter your topic in the Subject field and your question in the Question field.

Step 3 Click **Submit**.

When you click **Submit**, your question goes to the moderator along with the username and e-mail address you entered in the User Info dialog box (accessed through **Settings > User Information** in the IP/TV Viewer main window). If no e-mail address or user name has been provided, the moderator receives the question from “anonymous.”

Figure 4-25 Question Manager Dialog Box

Web-Based Question Manager

With IP/TV Version 3.5, users can access Question Manager from the browser plug-ins. Users can click the **Click Here to Ask a Question to the Speaker** link in the plug-in window to open the Question Manager popup window. The questions typed in this window are sent to the Question Manager daemon on IP/TV Content Manager.

To use the web-based Question Manager, follow these steps:

Step 1 To access Question Manager from the IP/TV browser plug-in:

- Click the **Ask a Question** button in the IP/TV Viewer plug-in window to launch a Question Manager popup window.
- or
- Click the **Click Here to Ask a Question to the Speaker** link, to launch the Question Manager popup window.

To access Question Manager from the QuickTime plug-in, click the **Click Here to Ask a Question to the Speaker** link.

Question Manager opens in a new browser window.

Step 2 Enter your topic in the Subject field and your question in the Question field.

Step 3 Click **Submit**.

When you click **Submit**, your question will go to the moderator along with the username and e-mail address you entered in the IP/TV Viewer User Info dialog box (accessed through **Settings > User Information** in the IP/TV Viewer main window). If no e-mail address or user name was provided, the moderator will receive the question from “anonymous.”

Advanced Topics

System administrators can choose from a list of DirectShow Filter Property windows and set operating parameters, perform advanced diagnostics, or adjust FlashWare options that can affect IP/TV Viewer performance. The list of properties windows is available when a program is playing and differs depending on the codec used.

In the viewer window, choose **Edit > Advanced Options**. The DirectShow Filter Property windows for filters that are installed with IP/TV are described. Property windows for other third-party filters, such as a hardware MPEG decoder, are also shown.

Choose **Controls > Advanced Options**. The DirectShow Filter Property windows for the filters that are installed with IP/TV are MPEG Video Decoder, MPEG Audio Decoder, and the FlashWare Source Filter. Property windows for other third-party filters, such as a hardware MPEG decoder, are also shown:

- MPEG Video Decoder

This property window lets you select either monochrome or color as the default setting. It also shows read-only information about the video stream, such as video settings, frame rate, and bit rate.

- MPEG Audio Decoder

This property window allows you to adjust the sound quality and stereo or mono settings. Lower-quality audio settings allow the CPU to spend less time processing audio and more time processing video, resulting in improved video quality. For best overall performance on most computers, we recommend setting audio to AM radio/mono.

- FlashWare Source Filter

This property window allows you to adjust various performance options, view an advanced statistics window, and adjust audio and video synchronization.

**Note**

When a Filter Property window is closed, all audio and video streams momentarily pause and then resume.



Customizing the User Interface

This chapter describes the procedures for moving and hiding panes, and customizing and creating new toolbars. IP/TV Viewer allows you to change the appearance of the main and viewer windows. You can display or hide panes and toolbars, and you can create new toolbars. This chapter includes the following sections:

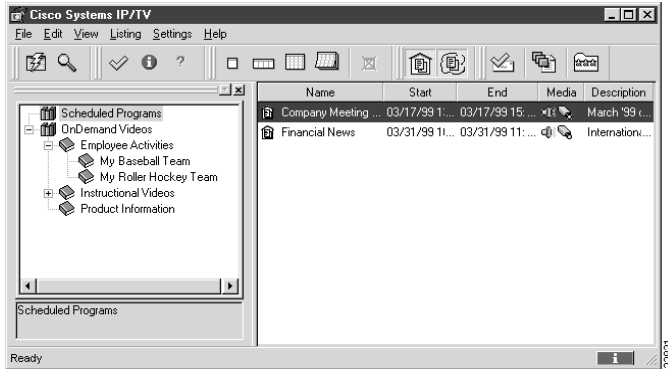
- [About Panes, page 5-1](#)
- [About Toolbars, page 5-3](#)

About Panes

As discussed in [Chapter 3, “Getting Started,”](#) IP/TV Viewer main window has two panes and various toolbars. Panes can be docked or floating.

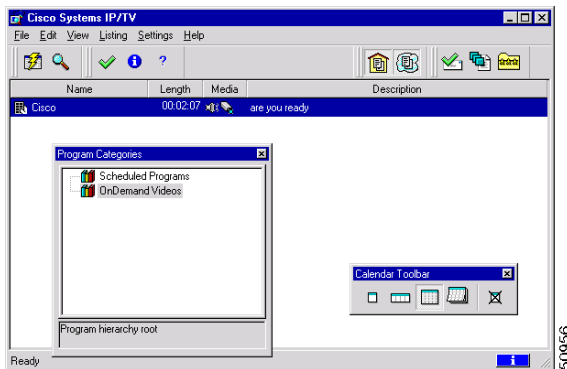
A docked pane is attached to one edge of IP/TV Viewer main window. When you drag a pane to the edge of the window, it snaps into place along the length of the edge of a window. You can disable the docking feature by pressing the **Ctrl** key when dragging a pane. (See [Figure 5-1.](#))

Figure 5-1 Docked Panes



A floating pane is not attached to the edge of the window. You can resize a floating pane and move it anywhere on your screen. (See [Figure 5-2](#).)

Figure 5-2 Floating Panes



Moving Panes

You can move the Program Categories pane or adjust the width of the Program Listings pane by dragging the middle gripper bar to the left or right.

When moving the Program Categories pane, turn on the **Allow Docking** command when you want to dock this pane and turn off the **Allow Docking** command when you want to float this pane.

To access the **Allow Docking** command, place your cursor in the Program Categories or Program Listings pane gripper bar and right-click. A popup menu appears with the commands **Allow Docking** and **Hide**.

**Note**

Another way to prevent docking when the **Allow Docking** command is checked is to hold down the **Ctrl** key while dragging panes or toolbars.

Displaying or Hiding Panes

To display IP/TV Content Managers in IP/TV Viewer main window, choose **View > Content Managers**. To hide this pane, uncheck this selection, or choose the **Hide** command in the popup menu.

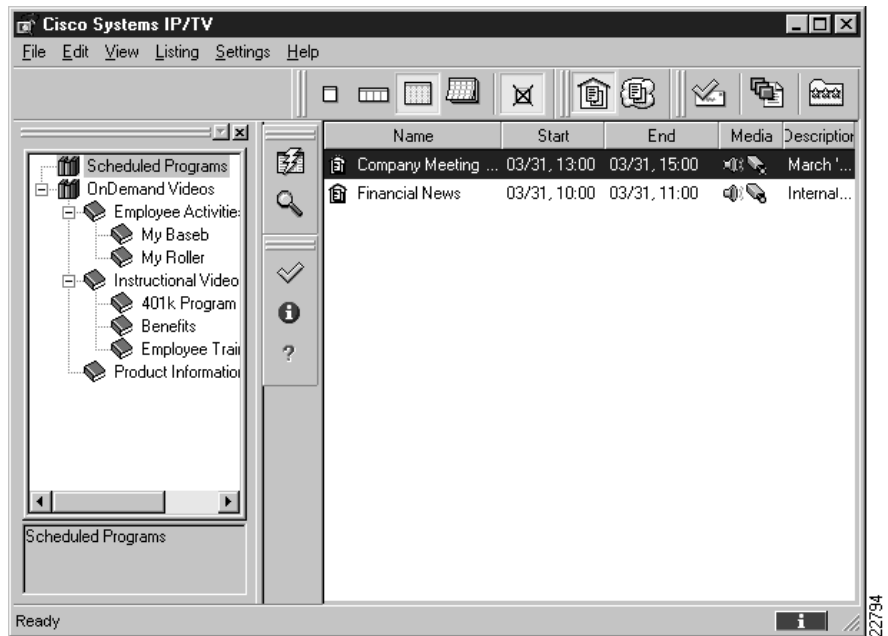
About Toolbars

Toolbars allow you to access and organize IP/TV Viewer commands quickly and easily. You can customize built-in toolbars or create new toolbars. You can add and remove buttons, hide or display toolbars, and move toolbars. Toolbars can be docked or floating.

A docked toolbar is attached to one edge of IP/TV main window or viewer window. You can dock a toolbar below the title bar of the window or to the left, right, or bottom edge of the main window. When you drag a toolbar to the edge of the window, the toolbar snaps into place along the length of the edge of the window.

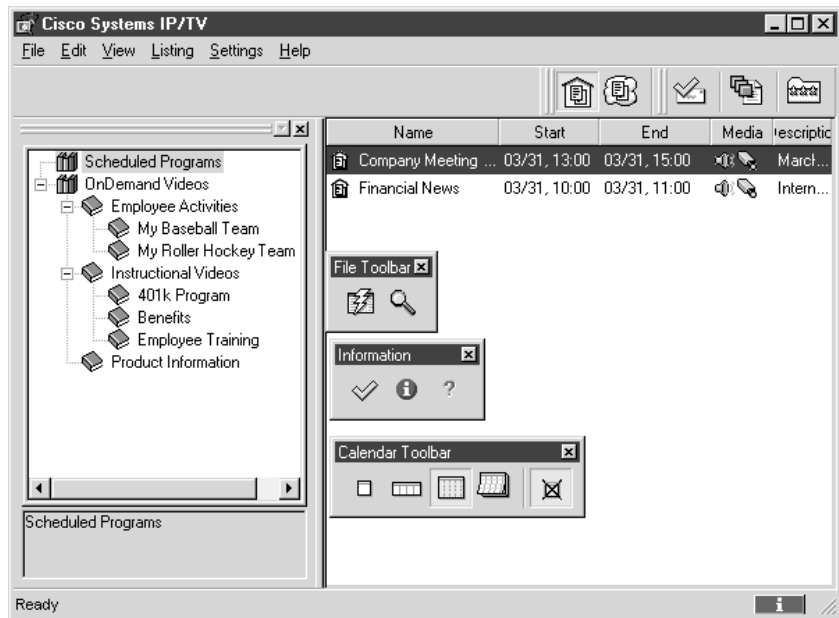
You can change the location of toolbars as desired. For example, in [Figure 5-3](#) the toolbars are docked, but not in their default positions.

Figure 5-3 Docked Toolbars



A floating toolbar is not attached to the edge of the window. You can resize a floating toolbar and move it anywhere in your screen. (See [Figure 5-4](#).)

Figure 5-4 Floating Toolbars



Built-In Toolbars

IP/TV Viewer comes with several built-in toolbars. You can add or remove command buttons from built-in toolbars, but you cannot delete them. You can, however, delete toolbars that you create.

Both IP/TV Viewer main window and viewer windows have the following built-in toolbars:

- IP/TV main window: File, Information, Calendar, Filters, and Personal Selections
- Scheduled and on-demand viewer windows: Program Surf, Video, and VCR Controls (on-demand only)

Displaying and Hiding Toolbars

To display or a hide a toolbar, follow these steps:

Step 1 From IP/TV Viewer main window or viewer window, choose **Edit > Customize Toolbars**.

The Customize dialog box appears with the Toolbars tab on top.

Step 2 To display a toolbar, check the check box for the toolbar name that you want to display. To hide a toolbar, uncheck the toolbar name check box to clear it. To show the tooltips of a toolbar, click it.

Moving Toolbars

You can move both a docked or a floating toolbar within IP/TV main or viewer windows.

To move a toolbar, follow these steps:

Step 1 Click the move handle on a docked toolbar, or click the title on a floating toolbar.

Step 2 Drag the toolbar to a new location.

If you drag the toolbar to the edge of IP/TV main window or viewer window, it docks to the edge of the window.

Creating a Custom Toolbar

To create your own custom toolbar, follow these steps:

-
- Step 1** In the Customize dialog box, click the **Toolbars** tab.
- Step 2** Click **New**.
The New Toolbar dialog box appears.
- Step 3** Enter the name of the new toolbar in the Toolbar Name field and click **OK**.
The toolbar name now appears in the list on the Toolbars tab. The new toolbar also appears as a floating toolbar in the program listings or viewer window.
-

Deleting a Custom Toolbar

To delete a toolbar you created, follow these steps:

-
- Step 1** In the Customize dialog box, click the **Toolbars** tab.
- Step 2** Choose the name of the toolbar you want to delete and click **Delete**.



Note You cannot delete built-in toolbars. When you choose a built-in toolbar, the Reset button appears. Click **Reset** to restore the default buttons to a built-in toolbar.

Adding and Removing Buttons on Toolbars

To add buttons to a built-in toolbar or a toolbar you created, follow these steps:

- Step 1** Make sure that the toolbar is visible in the Program Listings pane or viewer window.
 - Step 2** In the Customize dialog box, click the **Commands** tab. In the Categories pane, click a category to display the available command buttons.
 - Step 3** Drag the command button you want from the Buttons pane to the desired toolbar.
 - Step 4** When you have added all the buttons you want, click **OK**.
-

To remove buttons from a toolbar, follow these steps:

- Step 1** Open the Customize dialog box.
 - Step 2** Click the button on the toolbar that you want to remove and drag it off the toolbar.
-



Using IP/TV in a Web Browser

IP/TV can be incorporated into a web browser as either a plug-in or a helper application.

This chapter describes the procedures for using IP/TV Viewer and the QuickTime Player as browser plug-ins and helper applications. This chapter includes the following sections:

- [Using IP/TV as a Plug-In, page 6-2](#)
- [Using QuickTime as a Plug-In, page 6-5](#)
- [Web-Based Program Guide, page 6-6](#)
- [Using IP/TV Viewer as a Helper Application, page 6-7](#)

IP/TV Version 3.5 supports the use of Apple QuickTime Player as a plug-in. This feature helps users watch IP/TV programs without the need to install IP/TV Viewer.

[Table 6-1](#) shows which plug-in is used in different situations.

Table 6-1 Relationship of Plug-Ins to Programs

IP/TV Plug-In Installed ¹	QuickTime Plug-In Installed	Plug-In Used
X	X	Program is played using the IP/TV plug-in.
X	—	Program is played using the IP/TV plug-in.
—	X	Program is played using the QuickTime plug-in. ²
—	—	Program is not played, and you are prompted to install the QuickTime plug-in from the Apple website. ²

1. The IP/TV plug-in is used by default to play a program unless only the QuickTime plug-in is available.
2. If the program's Enforce Use of IP/TV plug-in option is checked, IP/TV prompts you to download the IP/TV Viewer plug-in.

Using IP/TV as a Plug-In

There are two ways to incorporate IP/TV into your web environment, each requiring varying levels of customization on your part. The two methods are using IP/TV Viewer as a browser plug-in and as a helper application.

Using IP/TV Viewer as a plug-in lets you watch an IP/TV program that is embedded directly in your browser web page.



Note

To run a browser plug-in, IP/TV Content Manager must be running in your network. You need to have IP/TV Viewer installed on your system with plug-ins. Note also that the IP/TV Viewer demo CD has an HTML page that you can load into your browser that works with the demo installation.

Using IP/TV Viewer as a helper application lets you launch IP/TV Viewer directly from your browser so that it runs in its own window. Most users create a web page that automatically launches the plug-in.

Refer to the *Cisco IP/TV Administration and Configuration Guide* for detailed information on how to create and customize an IP/TV plug-in or helper application.

The following sections describe how to launch and run an IP/TV plug-in, and how to access the IP/TV sample plug-in.

Launching the Plug-In

To launch IP/TV Viewer as a plug-in, open your browser and enter the URL of the plug-in. Ask your system administrator for the exact location and name of the browser plug-in web page. For example, the URL `http://<mywebserver>/yourplugin.htm` links to the web page named `yourplugin.htm`, which is located on the web server named `mywebserver`.

Running the Plug-In

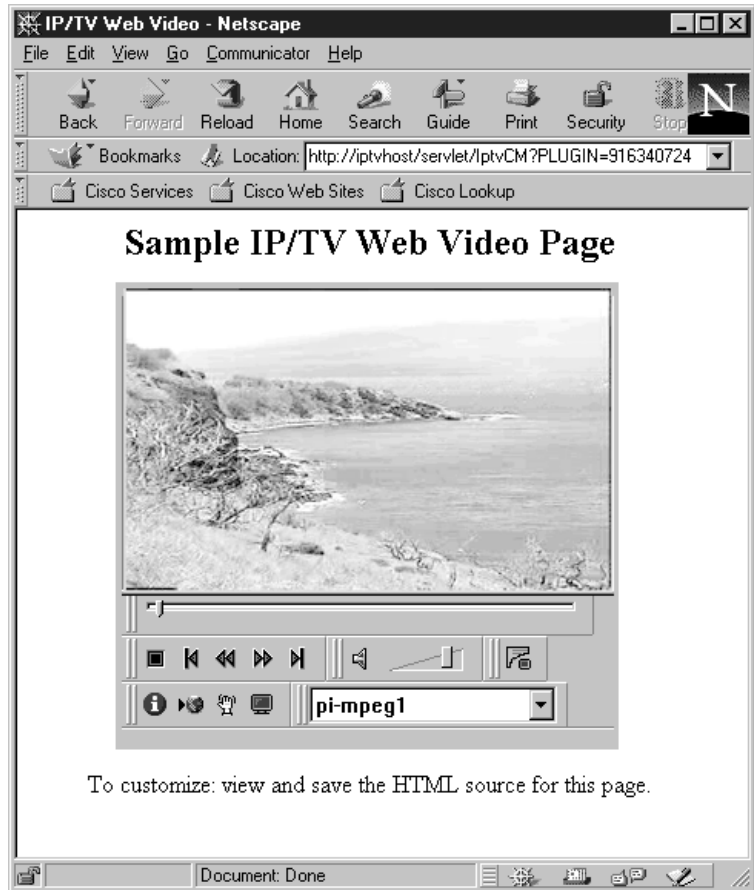
After you launch the plug-in, the browser web page with the embedded IP/TV plug-in window appears. If your system administrator has not changed the default toolbar parameter settings, your plug-in will look similar to [Figure 6-1](#).



Note

[Figure 6-1](#) is an example of an on-demand program plug-in window.

Figure 6-1 IP/TV as a Plug-In—On-Demand Program



The VCR controls for an on-demand program include Stop/Play, positioning buttons, Position Control slider, Mute button, and volume control. For a scheduled program, the VCR controls include Stop/Play, Mute button, and volume control. See [Appendix A, “Menu Bar and Tool Icon Reference,”](#) for a complete listing of viewer plug-in toolbar buttons and icons.

Using the IP/TV Sample Plug-In

If desired, you can use the sample plug-in that comes with IP/TV, which is useful if you want to launch and run IP/TV Viewer solely from a browser without any customization. To launch IP/TV sample plug-in, follow these steps:

-
- Step 1** Open your browser.
- Step 2** In your browser enter the following URL:

`http://mywebserver/iptvfiles/iptv.htm`

where *mywebserver* is the name of your IP/TV Content Manager.

The IP/TV Viewer window plug-in appears with the title IP/TV Web Video.



Note To display a list of all programs on IP/TV Content Manager, set showSurfToolbar to TRUE in the sample HTML page.

Using QuickTime as a Plug-In

IP/TV 3.5 supports the Apple QuickTime Player plug-in. This feature helps you watch IP/TV programs without the need to install IP/TV Viewer. If you do not have IP/TV Viewer installed on the device, you can access the web-based program guide through the browser using the IP/TV Content Manager URL.

When you click the Play button corresponding to a program in the program guide, IP/TV Content Manager searches your device for IP/TV Viewer or the QuickTime Player. If neither is present, IP/TV Content Manager prompts you to download the QuickTime plug-in from Apple.

Accessing Question Manager from the QuickTime Plug-In

QuickTime users can access the web-based Question Manager to interact with the program moderator. You can click the **Click Here to Ask a Question to the Presenter** link in the plug-in window to access Question Manager.

Question Manager opens in a new browser window. You can type your questions in the Question Manager window. The questions are sent to the Question Manager daemon on IP/TV Content Manager. For more information on Question Manager, see the [“Using Question Manager” section on page 4-32](#).

Limitations for the QuickTime Player

The Apple QuickTime Player can play most standard-based formats that IP/TV Version 3.5 supports. However, QuickTime does not support the following features of IP/TV Version 3.5:

- MPEG-2 transport streams
- MP3 audio
- MPEG-4
- MP4 files with URLs and JPEGs
- Presentations with ScreenCaster and Web Presenter
- Windows Media live and file-based (.asf, .avi) streaming
- Password-protected programs

Web-Based Program Guide

A web-based program guide provides you access to IP/TV programs even if you do not have IP/TV Viewer running on your device.

You can access the web-based program guide through your browser using the URL of IP/TV Content Manager. The guide lists all available programs, which you can access by clicking the corresponding button.

The programs are listed in two different categories: Scheduled Programs and On-Demand Programs. The web-based program guide has four tabs, Day, Week, Month and Year, which list program information for the given period. The Preferences link in the guide helps you to set up your preferences.

Refer to Chapter 5, “Using the Web-based Program Guide,” in the *Cisco IP/TV Content Manager User Guide* for more information on the web-based program guide.

Using IP/TV Viewer as a Helper Application

You can set up IP/TV Viewer to be used as a helper application. The following sections describe how to launch and run the IP/TV helper application.

**Note**

To create a helper application, IP/TV Content Manager must be running in your network and IP/TV Viewer must be installed.

Launching the Helper Application

To launch IP/TV Viewer as a helper application, open your browser and go to the web page that contains the IP/TV Viewer helper application link. Ask your system administrator for the exact location and name of the web page that contains this link. Click the link to launch IP/TV Viewer.

Running the Helper Application

After you launch the IP/TV helper application by clicking its web link, the IP/TV Viewer main window and then viewer window appear. The designated program begins to play in the viewer window. The program behaves exactly the same as when you launch IP/TV Viewer as a standard application.



Menu Bar and Tool Icon Reference

This appendix lists and describes the menu options and toolbar buttons in both the IP/TV Viewer main and viewer windows.

IP/TV Viewer Main Window Menu Bar Options

[Table A-1](#) lists and describes the IP/TV Viewer main window menu bar options.

Table A-1 IP/TV Viewer Main Window Menu Bar Options

Menu	Option	Accelerator Keys	Description
File	Print Setup		Configures the printer.
	Send Mail		Appears only if configured to send mail with Messaging Application Programming Interface (MAPI)-compliant e-mail package.
	Exit	Alt-F4	Exits IP/TV Viewer.
Edit	Copy Program	Ctrl-C	Copies the session description information for the selected programs or channels and places the text on the clipboard.
	Find	Ctrl-F	Displays the Search Programs dialog box, where you can quickly search for a specific program listing.

Table A-1 IP/TV Viewer Main Window Menu Bar Options (continued)

Menu	Option	Accelerator Keys	Description
View	Program Information	Ctrl-I	Displays program description and schedule information for the selected program. You can also subscribe to a program using this command.
	Watch Program	Ctrl-W	Opens a viewer window for the selected program. If the program is currently active, IP/TV plays the program. If a scheduled program is inactive, the viewer window is blank. If an on-demand program is inactive, an error message appears.
	Select Stream		Displays the Select Stream dialog box, where you can select a program's media stream, watch the program, or subscribe to it.
	Program Categories		Lets you display or hide the Program Categories pane.
	Content Manager Status		Displays the program listing update results.
	Status Bar		Lets you show or hide the status bar.
Listing	Show		Lets you show program listings by current date, week, month, or year. Lets you show or hide external, local, or past program listings.
	Sort By		Sorts the program listing by program name, program description, start time, end time, duration, and media type.
	Refresh All Listings Now		Downloads a new copy of the program or channel listing.

Table A-1 IP/TV Viewer Main Window Menu Bar Options (continued)

Menu	Option	Accelerator Keys	Description
Settings	Content Managers		Displays the Options dialog box with the Content Managers tab on top. You can add or delete IP/TV Content Managers.
	Window Options		Displays the Options dialog box with the Window Options tab on top. You can control IP/TV Viewer window settings.
	User Information		Displays the Options dialog box with the User Info tab on top. You can enter user information.
	Customize Toolbars		Displays the Customize dialog box, where you can customize existing toolbars and create new ones.
Help	Contents		Displays the table of contents for online help.
	Using Help		Displays information about using Windows help.
	Web Help		Displays the IP/TV support page located at www.cisco.com .
	About IP/TV		Displays IP/TV Viewer release information.

IP/TV Viewer Main Window Tools and Icons

Table A-2 lists the tools and icons available in the IP/TV Viewer main window.

If you place your mouse cursor over any of the tools and hold it there for a few seconds, a small box (a tooltip) appears with a brief description of the tool, if the Tooltip option is selected in the Options dialog box.

Table A-2 IP/TV Viewer Main Window Tools and Icons







Icon	Name	Description
	Refresh Listings button	Downloads the most current program listing from the Content Manager. Clicking this button while you are downloading programs cancels this function.
	Search Programs button	Displays the Search dialog box, which lets you search for program listings by keyword.
	Watch Program Now button	Launches the selected program.
	Program Information button	Displays the Program Information dialog box, which lets you view information and schedule the program. You can also subscribe to a program using this dialog box.
	Display Help button	Displays online help.
	Show Today's Listings button	Displays program listings for current date only.

Table A-2 IP/TV Viewer Main Window Tools and Icons (continued)








Icon	Name	Description
	Show This Week's Listings button	Displays program listings for today and current week only.
	Show This Month's Listings button	Displays program listings for current month only.
	Show This Year's Listings button	Displays program listings for current year only.
	Show/Hide Past Programs toggle buttons	Lets you display or hide programs that were recently listed but are no longer listed. This button acts as a toggle and becomes disabled if no filtering is selected.
	Show Intranet Programs button	Displays local program listings such as MBone programs.
	Show Internet Programs button	Displays external program listings.
	Subscriptions button	Opens and closes the Subscriptions window.

Table A-2 IP/TV Viewer Main Window Tools and Icons (continued)









Icon	Name	Description
	OnDemand Playlist button	Opens and closes the OnDemand Playlist window.
	Personal Favorites button	Opens and closes the Favorites window.
	Status bar	Displays information about current program activity.
	Program Listings Update Results toggle button	Provides diagnostic status information regarding the success or failure of IP/TV Viewer's last poll to obtain new information from its assigned IP/TV Content Managers. The information contained in the Program Listings Update Results window is advanced information, generally reserved for administrative diagnostic purposes. This button acts as a toggle.
	Audio icon	Indicates that an audio stream is present in the program. This icon is located in the Media column in the Program Listings pane.
	Video icon	Indicates that a video stream is present in the program. This icon is located in the Media column in the Program Listings pane.

Table A-2 IP/TV Viewer Main Window Tools and Icons (continued)

Icon	Name	Description
	SlideCast icon	Indicates that a SlideCast stream is present in the program. This icon is located in the Media column in the Program Listings pane.
	Web Presenter icon	Indicates that a web presentation stream is present in the program. This icon is located in the Media column in the Program Listings pane.

IP/TV Viewer Window Menu Bar Options

Table A-3 lists the options available in the viewer window menu bar.

Table A-3 Viewer Window Menu Options

Menu	Option	Accelerator Keys	Description
Media	Show Video	Ctrl-F	Displays or hides the program video.
	Play Audio	Ctrl-M	Plays or mutes the audio output.
	Playing	Alt-Z	Stops and restarts audio and video.
Edit	Copy Image	Ctrl-C	Captures a screen shot of the current video image and saves it on the clipboard.
View	Program Information...	Ctrl-I	Opens the Program Information window for the selected program.
	Get Info from the Web		Opens your local browser to the web page that was designated when the program was created in IP/TV Content Manager.
	Ask a question		Lets you access Question Manager if the program supports this feature.
	Status Bar		Displays and hides the viewer window status bar.

Table A-3 Viewer Window Menu Options (continued)

Menu	Option	Accelerator Keys	Description
	Video Sources		Lets you toggle additional video sources on or off (if present).
	Full Screen	Ctrl-Pg Up	Lets you display a full-screen viewer window (if present).
Window	Always on Top	Ctrl-T	If checked, always places the viewer window on top.
	Minimal View	Pg Dn	Switches from the standard viewer window with menu bar and tool bars to a minimal viewer window with the video image only. ¹
	Restore Controls	Pg Up	Restores viewer window to normal view.
	Scale Down	-	Reduces the video image by 50 percent.
	Scale Up	+	Enlarges the video image by 50 percent.
	Reset to Defaults	Ctrl-R	Resets scale, view, mute, color, and pause functions to their default values. If synchronization is enabled, resynchronizes video to audio.
Settings	Customize Toolbars		Lets you access the Customize dialog box so you can customize toolbars on the viewer window.
	Advanced Options		Allows you to examine the MPEG video codec and MPEG audio codec (only when tuned in to an MPEG program) and the FlashWare source filter properties.
Help	Contents		Displays the table of contents of the online help.
	Using Help		Displays information about using Windows help.
	Web Help		Displays the IP/TV support page located at www.cisco.com .

1. The Page-Up key undoes this feature.

IP/TV Viewer Window Tools and Icons

Table A-4 lists the tools and icons available on both the scheduled and on-demand viewer windows.

Table A-4 Viewer Window Tools and Icons






Icon	Name	Description
	Change Program list	Displays a list of favorite programs. Use this list to locate a favorite program. Selecting a different program in the list discontinues the current program and changes to the selected program. All programs that are listed in the Change Program list are those you list in the Favorites window.
	Program Information button	Displays program scheduling information for the current program.
	Web Info button	Launches the default browser on your computer and goes to the URL designated in IP/TV Content Manager when the program was created.
	Ask a Question button	Displays the Ask a Question screen, if enabled, in your browser so you can ask questions during a presentation. See the “Using Question Manager” section on page 4-32 .
	Help button	Displays online help.

Table A-4 Viewer Window Tools and Icons (continued)








Icon	Name	Description
	Copy Image button	Captures a screen shot of the current video frame and saves it to the clipboard. ¹
	Stop button	Stops the current program (both audio and video) and freezes the video image. Only present if the program is playing.
	Play button	Resumes the current program and displays the Stop button. Only present if the program is stopped.
	VCR control buttons	Lets you control the position of the video while you are watching it. The buttons from left to right are Jump to Beginning, Jump Back, Jump Forward, and Jump to End.
	Select Position button	Displays the Change Play Position dialog box. This dialog box lets you select the time position of the video.
	Position Control slider bar	Lets you fast-forward or rewind video segments while watching an on-demand program. This icon is not present when you watch a scheduled program. ²
	Pause/Restore Audio button	Pauses or resumes the audio portion of the program.

Table A-4 Viewer Window Tools and Icons (continued)



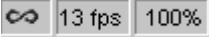


Icon	Name	Description
	Volume Adjustment slider bar	Turns the audio volume up or down. Note that the control and mute function native to your computer overrides this function.
	Reception quality indicators	See the “Monitoring Quality” section in Chapter 4 for information on how to interpret these indicators.
	Status bar	<p>Displays messages reflecting the current status of the viewer window and three statistics boxes:</p> <p>The left box indicates how long the current program will play in days:hours:min:sec. The infinity symbol indicates continuous playing.</p> <p>The center box displays the frame rate (frames per second) of the current program.³</p> <p>The right box displays the scale of the original video size as a percentage value.</p>

Table A-4 Viewer Window Tools and Icons (continued)

Icon	Name	Description
	QoS video indicator	<p>Indicates the type of QoS video that is enabled for a given transmission.</p> <p>See the “Monitoring Quality” section in Chapter 4 for information on how to interpret these indicators.</p>
	QoS audio indicator	<p>Indicates the type of QoS audio that is enabled for a given transmission.</p> <p>See the “Monitoring Quality” section in Chapter 4 for information on how to interpret these indicators.</p>

1. Because of the limitations of certain video graphics cards, this option may not be supported.
2. There is a slight delay in the video when you change position until IP/TV Server and IP/TV Viewer resynchronize.
3. The Frame Rate Statistics box is disabled for programs that are served by a Windows Media Technologies (WMT) server.



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